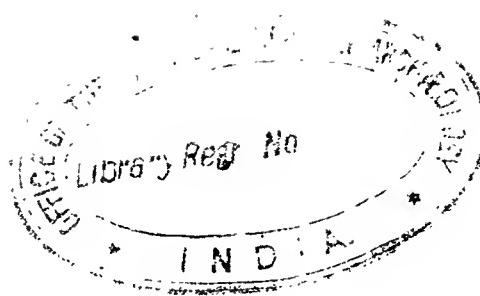


GOVERNMENT OF INDIA
DEPARTMENT OF ARCHAEOLOGY
CENTRAL ARCHAEOLOGICAL
LIBRARY

CALL No. 720.5/J.R.I.B.A.
ACC. No. 31535

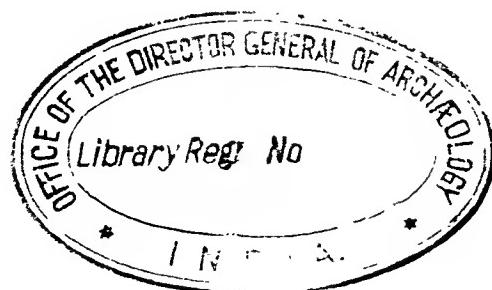
D.G.A. 79
GIPN-S4-2D. G. Arch. N. D /56.—25-9-58—1,00.000.





THE ARCHITECTURAL JOURNAL
BEING THE JOURNAL OF THE ROYAL
INSTITUTE OF BRITISH ARCHITECTS

VOLUME XXX—THIRD SERIES





JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

NOVEMBER 1922—OCTOBER 1923



720.5
J.R.I.B.A.

22.11.23

VOLUME XXX—THIRD SERIES

LONDON : No. 9 CONDUIT ST., REGENT ST., W.1

1923

A285

1923



W. H. SMITH & SON
THE ARDEN PRESS
STAMFORD STREET, LONDON
S.E.

CENTRAL ANTHROPOLOGICAL
LIBRARY - HI.
Acc. No. 31535
Date 28-5-57
Call No. 720.5/J.R.T.B.A

Index to Volume XXX. Third Series

- Abercrombie, Professor Patrick : Speech at Edinburgh Conference, 527.
- Academic Dress for Members and Licentiates [Discussion], 426.
- Acoustics of the Auditorium, The [G. A. Sutherland], 608, 637.
- Adams, Maurice B. : Conciliation Board of Enquiry, 193 ; Annual Report, 470.
- Adams, The Retirement of Mr. Maurice B., 626.
- Adshead, Professor S. D. : Building Heights and Ancient Lights, 493 ; Speech at Edinburgh Conference, 526.
- Advisory Fine Arts Commission : Speeches by Sir Aston Webb, P.R.A., and the Lord Chancellor, 417.
- Allied Societies Overseas, The R.I.B.A. and, 595, 693.
- ALLIED SOCIETIES—**
- BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION : Year Book for 1922, 24 ; Annual General Meeting, 473.
- BIRMINGHAM ARCHITECTURAL ASSOCIATION : Mr. Rupert Savage's Presidential Address, 62 ; Provincial Universities and the Study of Architecture [C. Grant Robertson], 196 ; Annual Dinner, 257 ; Paper by Mr. Benjamin Walker, 326.
- BRISTOL SOCIETY OF ARCHITECTS, 62.
- LEEDS AND WEST YORKSHIRE ARCHITECTURAL SOCIETY : Annual General Meeting, 355.
- LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS : Speech by Mr. Paul Waterhouse, 196.
- LIVERPOOL ARCHITECTURAL SOCIETY, 197 ; Seventy-fifth Anniversary Dinner, 325.
- MANCHESTER SOCIETY OF ARCHITECTS : Mr. Francis Jones' Presidential Address, 23 ; The Threatened Building Stoppage, 355 ; Extracts from Annual Report, 429.
- NORTHERN ARCHITECTURAL ASSOCIATION : Mr. T. R. Milburn's Presidential Address, 60 ; Annual Dinner, 257 ; Middlesbrough and, 564.
- NOTTS AND DERBY ARCHITECTURAL SOCIETY : Annual General Meeting, 473.
- OXFORDSHIRE SOCIETY OF ARCHITECTS : The Point of View in the Study of Architecture [Edward Warren], 89 ; The Greek Point of View [Ronald P. Jones], 117.
- READING SOCIETY OF ARCHITECTS : Extracts from the Annual Report, 472 : Programme of Course of Lectures, 653.
- SCOTLAND, THE INCORPORATION OF ARCHITECTS IN : Extracts from the Annual Report, 564.
- SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS : The Notable Houses
- Allied Societies—cont.
- of Northamptonshire [J. Alfred Gotch], 196 ; Annual Dinner, 258.
- SINGAPORE SOCIETY OF ARCHITECTS, 628.
- YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY : Annual Dinner, 325 ; Annual Meeting, 473.
- Alness, Lord : Speech at Edinburgh Conference Banquet, 531.
- American Hospital Design [W. A. Pite], 587.
- Anderton, F. R. : The New London County Hall, 187.
- Annual Elections : Nominations, 433 ; Scrutineers' Reports, 505.
- Annual Report of the Council, 361 ; Board of Architectural Education, 366 ; Art Committee, 370 ; Literature Committee, 372 ; Practice Committee, 373 ; Science Committee, 375 ; Competitions Committee, 378 ; Town Planning Committee, 379 ; Finances, 380 ; Auditors, 384 ; Discussion at Annual Meeting : Wm. Woodward, 467 ; Paul Waterhouse, 469 ; Arthur Keen, 469 ; H. W. Burrows, 469 ; Maurice B. Adams, 470.
- Ansell, W. H. : Architectural Drawing [Review], 253 ; Wren's Attitude of Mind, 281.
- Ashley, Henry V. : Review of Work submitted for the Prizes and Studentships, 1922-23, 206.
- Architects and Advertising [J. Murray Easton], 596.
- Architects and Limited Liability Companies, 63.
- Architects' Benevolent Society : Scheme of Professional Insurance, 289, 399 ; Annual General Meeting, 474.
- Architects' Handbook of Civic Art [Review by Raymond Unwin], 416.
- Architecture : A Necessity—or a Luxury? [Public Lecture by H. S. Goodhart-Rendel], 309.
- ARCHITECTURE AND ARCHITECTS IN INDIA [H. V. Lanchester], 293, 307 ; [James Ransome], 303 ; [Herbert Baker], 303 ; [Beresford Pite], 304 ; [Sir Lionel Jacob], 305 ; [Captain G. S. C. Swinton], 307 ; [E. B. Havell], 308 ; Extracts from Petition from Bombay Architectural Association to various authorities in Bombay, 317.
- Architecture at the Royal Academy [Basil Oliver], 421.
- Architecture, Contemporary British [Paul Waterhouse], 65.
- Architecture, An Introduction to the Theory of [Lionel B. Budden], 233, 316 ; [George H. Blagrove], 288.
- Architecture, How to Look at [Professor C. H. Reilly], 116.
- Architecture, Modern Problems in [Percy Morris], 555.
- ARCHITECTURE OF PROVINCIAL FRANCE, THE [Henry M. Fletcher], 405, 415 ; [Edward P. Warren], 413 ; [Fernand Billery], 414 ; [H. P. Cart de Lafontaine], 414 ; [Arthur Davis], 414 ; [Paul Waterhouse], 415.
- Architecture Club, The, 60 ; [Exhibition of Photographs and Models], 192 ; The First Exhibition of the [Stanley C. Ramsey], 284 ; Architecture Club Dinner at Grosvenor House, The [Oswald P. Milne], 354 ; 538.
- Architectural Education : At Oxford, 26 ; International Congress on, 259 ; Architectural Education a Century Ago [Arthur T. Bolton], 569.
- Ayling, R. Stephen : Augustus W. Tanner, 626.
- Baggallay, Frank T. : Architectural Building Construction [review], 192 ; Egyptian Art : Introductory Studies [review], 559.
- Baines, Sir Frank : Repair of Westminster Hall Roof, 14.
- Baker, Herbert, A.R.A., 256 ; Baker Herbert : Architecture and Architects in India, 303.
- Barnes, Major Harry : The Law of Building Outside London, 146 ; Registration of Architects, 222, 224.
- Bartlett, Arthur : Register of Craftsmen, 21.
- Batalha, the Battle Abbey of Portugal [G. A. T. Middleton], 550.
- Bayes, Walter : Painting and Architecture [Public Lecture], 342.
- Billery, Fernand : The Architecture of Provincial France, 414.
- Birmingham Architecture, Fifty Years of [George Drysdale], 542.
- Birmingham Civic Society, The, 26 ; [William Haywood], 226, 259.
- Birmingham School of Architecture : Appointment of Mr. George Drysdale as Director of Architecture, 155.
- Blagrove, George H. : An Introduction to the Theory of Architecture, 288.
- Blomfield, Sir Reginald : The Artist and the Man, 264 ; Lord Plymouth [Obituary], 324 ; Sir Christopher Wren, 1632-1723 [review], 461.
- Blueing of Coniferous Timber, The [Malcolm Wilson], 111.
- Boker, R. : Russian Art of the Petersburg Period [review], 601.
- Bolton, A. T. : The Literary History of the Adelphi and its Neighbourhood [review], 253 ; Records of Wren at the Record Office, Chancery Lane, 275 ; The Lighting of Picture Galleries and Museums, 321 ; Architectural Education a Century Ago, 569.
- Bombay Architectural Association : Architecture and Architects in India, 317.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- Bone, James : In Praise of Portland Stone, 282.
- Bosom, Alfred C.: Building Heights and Ancient Lights, 494.
- British Institute of Industrial Art, The, 566.
- British School at Rome. The: Rome Scholarships 1923, 290.
- Brooks, W. E.: Charter, Council or Election, Which? 419.
- Brown, G., Baldwin : Theories Classical and Romantic, 448.
- Buckland, Herbert T.: Registration of Architects, 223.
- Budden, Lionel B.: An Introduction to the Theory of Architecture, 233, 316.
- BUILDING HEIGHTS AND ANCIENT LIGHTS :** [Delissa Joseph], 477, 495 ; [Sir William Bull], 488 ; [Sir Sydney Skinner], 489 ; [Professor Beresford Pite], 490 ; [Raymond Unwin], 491 ; [W. R. Davidge], 492 ; [W. W. Scott-Moncrieff], 492 ; [Professor S. D. Adshead], 493 ; [Alfred C. Bosom] 494 ; [P. J. Waldram], 495 ; [C. Lovett Gill], 496.
- Building Trade Crisis, The [Paul Waterhouse], 350.
- Bull, Sir William : Building Heights and Ancient Lights, 488.
- Burnet, Sir John J.: Portrait facing p. 509 ; Name to be submitted by Council for Royal Gold Medal, 225, 260 ; Speech at presentation of Royal Gold Medal, 513.
- Burrows, H. W.: Annual Report, 469.
- Butler, A. S. G.: Theories Classical and Romantic, 449.
- Cardiff Technical College, 26.
- Cart de Lafontaine, H. P.: The Architecture of Provincial France, 414.
- Carus-Wilson, Mr. Charles D.: Appointed to post of Lecturer in Architecture at the University of Sheffield, 117.
- Cement, 291.
- Chancel Arch Screens, Three [F. M. Simpson], 545.
- Chancellor Wykham : Beeleigh Abbey, Essex [review], 393.
- Charter and By-Laws : Report of Committee, 356 ; Revision of: [Discussion], 423 ; Members of Committee, 654.
- Charter and By-Laws, Licentiates and the [John E. Yerbury], 465.
- Charter, Council or Election, Which? [Hubert C. Corlette], 218, 397 ; [Fredk. R. Hiorns], 255, 419 ; [W. E. Brooks], 419.
- Chatterton, F.: Who's Who in Architecture, 1923, 355.
- Chaundler, J. H.: The Preservation from Decay of Stone on Buildings, 317.
- City Churches, The [Sir Banister Fletcher], 466.
- Clarke, Max : Architectural Office Administration [review], 18.
- Clynes, Rt. Hon. J. R.: Tints and Towns, 191.
- Code of Ethics [Sydney Perks], 349.
- Code of Professional Conduct and Practice, 26 ; [H. B. Creswell], 155 ; [Sydney Perks], 217.
- Cole, R. Langton : The Lighting of Picture Galleries and Museums, 20.
- Collard, A. O.: The Law of Building Outside London, 148 ; The Hammersmith Housing Scheme, 341.
- Competitions : Australian Parliament Buildings, 360 ; Birkenhead Art Gallery, 476 ; Bournemouth Pavilion, 199, 326 ; Brechin War Memorial, 199, 260 ; Cairo Hospital, 291 ; Chiswick River Embankment and Promenade, 627, 655 ; Colombo, New Town Hall and Municipal Offices, 326 ; Douglas, Isle of Man, Laying-out of Building Estate, 90 ; Durham War Memorial, 598 ; Eastleigh, New Assembly Hall and Extension of Existing Council Buildings, 628, 655 ; Fauldhouse, Proposed Infant School, 404, 432, 506 ; Greenwich Public Baths and Wash-houses, 291 ; Haifa Business Centre, 326 ; Halifax, Bull Green Lay-out, 598 ; Holmside and South Moor Collieries : Cottage Hospital, 655 ; Hull Cenotaph, 260, 506 ; Imperial War Graves Commission : Memorials to the Missing in France, 598 ; International Labour Office, Geneva, 27, 160 ; Largs Pavilion, 476, 506 ; Leigh-on-Sea Baptist Church, 476 ; Manchester : Proposed Hospital for the Barton-upon-Irwell Union, 565 ; Manchester War Memorial [Paul Waterhouse], 565 ; Modern Hospital's Competition for Small Hospital Plans, 27, 63 ; Montevideo Departmental Council Building, 291 ; Newcastle-upon-Tyne : Proposed Library, Armstrong College, 565 ; Old Cranleighan Society Cricket Pavilion, 27 ; Ossett War Memorial, 326 ; Prestwich Co-operative and Industrial Society, Ltd.: Block of five shops, 291 ; Ryde (I.O.W.) Pavilion, 27 ; Southsea Common Lay-out and Development, 627 ; Swansea, New Masonic Buildings, 326 ; Taunton School War Memorial, 627 ; Troon War Memorial, 326 ; Truro : Proposed Public Hall, 565 ; Tunbridge Wells Pavilion, 160, 404 ; Twickenham, Proposed Sunday School, 506 ; Uruguay, Government Slaughter House and Freezing Establishment, 404 ; Warrington, Wesleyan New Church and Sunday School, 565, 598 ; Wirral Union, Clatterbridge Infirmary, 598 ; Yeovil, Laying-out of Land as Burial Ground, 476, 506.
- Conciliation Board of Enquiry [Maurice B. Adams], 193.
- Cooper, Sir Edwin, 155.
- Cope, Sir Arthur S., 7.
- Corlette, Hubert C.: Oxford : A School of Architecture, 74 ; Charter, Council or Election, Which? 218, 397 ; Registration of Architects, 222 ; Speech at Edinburgh Conference, 527 ; Award of Bronze Medal by the Paris Salon, 596.
- Council Meetings, Notes from Minutes of, 324, 327, 433, 471, 544, 568, 599.
- Crawford and Balcarres, the Earl of : The R.I.B.A. War Memorial, 44 ; The Lighting of Picture Galleries and Museums, 319.
- Creswell, H. B.: The Code of Professional Conduct, 155.
- Crompton, W. E. Vernon : Smoke and Noxious Vapours Abatement, 55 ; Theories Classical and Romantic, 450.
- Crosby Hall, the Future of, 502.
- Cross, A. W. S. : The Site of the Globe Playhouse [review], 557.
- Crow, Arthur : Philip Henry Tree, 160.
- Cubitt, Horace W.: The Law of Building outside London, 151.
- Daubney, C. A. : The Law of Building outside London, 152.
- Davidge, W. R. : The Administration of the Town Planning Duties of Local Authorities [review], 110 ; The Law of Building outside London, 150 ; Everyday Life in the New Stone, Bronze and Early Iron Ages [review], 286 ; Building Heights and Ancient Lights, 492.
- Davies, W. R. : Vote of Thanks to President, 206.
- Davis, Arthur : The Architecture of Provincial France, 414 ; Exhibition of Students' Drawings, 650.
- Dawber, E. Guy : Registration of Architects, 223.
- Deas, F. W. : James A. M. Baxter, 627.
- Decay in Building Stone, 471.
- Decorative Art at Burlington House [Henry M. Fletcher], 189.
- Dicksee, Bernard : Registration of Architects, 221.
- Downing, H. P. Burke : Tom Tower, Christ Church, Oxford [review], 560.
- Drysdale, George : Fifty Years of Birmingham Architecture, 542.
- Durability of Building Stones, 595.
- Easton, J. Murray : Japanese Temples and their Treasures [review], 17 ; Architects and Advertising, 596.
- Edinburgh College of Art : Awards, 595.
- Edwards, A. Trystan : Small Houses of the late Georgian Period [review], 585.
- Elmes Studentship [Hastwell Grayson], 21.
- Elwig, Henry : Licentiate R.I.B.A., 419.
- Emerson, H. V. Milnes : Water Board's Regulations, 503.
- English Decoration and Furniture of the later Eighteenth Century [M. Jourdain], 350, 398 ; [Charles E. Sayer], 350.

INDEX

- Examinations : Overseas, 27 ; Exemption from Final, 27 ; Final Examinations : Alternative Problems in Design, 161 ; Special War Examination, 162, 199, 231 ; Dates of Intermediate and Final, 199 ; Centres for Intermediate, 359, 436, 654 ; List of newly registered Probationers, 401 ; List of newly registered Students, 403 ; Intermediate Examination Results, 599 ; Final Examination Results, 600 ; R.I.B.A. Problems in Design, 627.
- Exhibitions : Royal Academy Winter Exhibition of Decorative Art, 15 ; [Henry M. Fletcher], 189 ; Exhibition of Architects' Working Drawings in the Galleries of the Institute, 26 ; Exhibition of Contemporary British Architecture : Speech by the President, General Impression by Charles E. Sayer, 87 ; R.I.B.A. Exhibition of Architecture, Town Planning, and Complementary Arts, 155 ; The First Exhibition of the Architecture Club, 192 ; [Stanley C. Ramsey], 284 ; The British Empire Exhibition, 195 ; Exhibition of British Architecture in America, 256 ; Wren Memorial Exhibition at the R.I.B.A. [W. Henry Ward], 271 ; Records of Wren at the Record Office, Chancery Lane [Arthur T. Bolton], 275 ; Wren Exhibition at Oxford [W. Henry Ward], 276 ; Sir Ernest George's Water-colours, 286 ; Exhibition of Mr. Raffles Davison's Drawings in New York, 289 ; The London Society : Exhibition of Models and Drawings for a New Bridge at Charing Cross, 313 ; Mr. Walcot's Restorations of Ancient Temples [William Harvey], 344 ; Architecture at the Royal Academy [Basil Oliver], 421 ; Fifty Years of Birmingham Architecture [George Drysdale], 542 ; Chicago Architectural Exhibition, 566 ; Exhibition of Architecture at Norwich, 596. The Gothenburg International Town Planning Exhibition and Conference, 621 ; Exhibition of Designs of Students exempted from the R.I.B.A. Final Examination, 627 ; Exhibition of Students' Drawings [Arthur J. Davis], 650 ; Autumn Picture Exhibitions, 652.
- Farey, Cyril A. : Robert Frank Atkinson, 566.
- Fees for giving expert evidence, 399.
- Fletcher, Lady : Speech at Edinburgh Conference Banquet, 529.
- Fletcher, Sir Banister : The City Churches, 466.
- Fletcher, Henry M. : Decorative Art at Burlington House, 189 ; Sir Christopher Wren's Carpentry, 388 ; The ARCHITECTURE OF PROVINCIAL FRANCE, 405, 415.
- Flockton, Charles B. : Registration of Architects, 219.
- Forrest, G. Topham : London County Council and Post-War Housing [Chadwick Lecture], 256.
- Forster, F. J. : The Survey of London, St. Leonard, Shoreditch, 537.
- Franck, J. E. : The Hammersmith Housing Scheme, 341.
- Franco-British Union of Architects, Annual Meeting, 563.
- Fraser, Percival M. : The General Election and Registration, 21 ; Practical Structural Design (review), 649.
- Gardner, Professor Ernest A. : Greek Public Buildings [Public Lecture], 67.
- Gaster, L. : Illuminating Engineering in relation to Architecture, 41.
- Georgian Period, Small Houses of the late [review by A. Trystan Edwards], 585.
- Gibbon, I. G. : The Law of Building outside London, 147.
- Gibbs, Edward M. : The Lighting of Picture Galleries and Museums, 323.
- Gill, C. Lovett : Building Heights and Ancient Lights, 496.
- Glanfield, Ernest B. : The *Country Life* Book of Building and Decorating [review], 392.
- Globe Playhouse, the Site of [review by A. W. S. Cross], 557.
- Godefroy, M. J. : Speech at presentation of Royal Gold Medal, 514.
- Goodhart-Rendel, H. S. : Architecture—A Necessity or a Luxury? [Public Lecture], 309.
- Gordon, Leslie : The Hammersmith Housing Scheme, 340.
- Gotch, J. Alfred : Registration of Architects, 219 ; Speech at Edinburgh Conference Banquet, 529.
- Gothenburg, International Cities and Town Planning Exhibition at, 430, 596 ; [Raymond Unwin], 621.
- Grayson, Hastwell : Elmes Studentship, 21.
- Greek Public Buildings [Public Lecture by Professor Ernest A. Gardner], 67.
- Green, W. Curtis : Award of London Street Architecture Medal, 399, 420.
- Greenall, B. : The Hammersmith Housing Scheme, 341.
- Grice, W. S. : R.I.B.A. Academic Dress, 398.
- Gunn, Edwin : Specification No. 25, 1923 [review], 503.
- Gunton, Josiah : Registration of Architects, 223.
- Hall, H. Austen : Philip Henry Tree, 119.
- HAMMERSMITH HOUSING SCHEME. THE : [G. E. S. Streetfeild], 329, 341 ; [W. Percy Waters], 338 ; [Raymond Unwin], 338 ; [Marshall Hays], 339 ; [Dr. J. P. Howell], 340 ; [Leslie Gordon], 340 ; [B. Greenall], 341 ; [J. E. Franck], 341 ; [A. O. Collard], 341.
- Harding, C. A. : Pirro Ligorio of Naples, Rome and Ferrara, 629.
- Hart, W. E. : The Law of Building outside London, 145.
- Harvey, William : Westminster Hall Roof, 8 ; Mr. Walcot's Restorations of Ancient Temples, 344.
- Havell, E. B. : Architecture and Architects in India, 308.
- Hays, Marshall : The Hammersmith Housing Scheme, 339.
- Haywood, William : The Birmingham Civic Society, 226, 259.
- Healey, A. J. : R.I.B.A. Academic Dress, 398.
- Hind, Professor A. M. : Theories Classical and Romantic, 446.
- Hiorns, F. R. : Whitgift Hospital, Croydon, 109, 429 ; Charter, Council or Election, Which? 255, 419 ; Theories Classical and Romantic, 448.
- Hobson, J. R. : Building Supervision [review], 288.
- Holmes, Sir Charles : The Lighting of Picture Galleries and Museums, 319.
- Holt, Gordon : Cours d'Architecture et de Constructions Civiles (Review), 649.
- Hooper, Francis : The Law of Building outside London, 148.
- de l'Hôpital, Mrs. W. : Harry Inigo Triggs, 431.
- House of Cards, The [W. W. Scott-Moncrieff], 391.
- Housing the People [Arthur Welford], 625.
- Housing Achievements, 1919 to 1922 [T. Alwyn Lloyd], 351.
- Housing Bill, The [Paul Waterhouse] 418 ; The R.I.B.A. and, 502.
- Housing Policy, National, Recommendations submitted by the Council to the Ministry of Health, 356.
- Housing, State-Aided, Architects' Fees for, 89.
- Housing Work, Architects' Fees for Private Enterprise, 475.
- Howell, Dr. J. P. : The Hammersmith Housing Scheme, 340.
- Hughes, T. H. : Speech at Edinburgh Conference, 526.
- Hutchison, Lord Provost : Speech at Edinburgh Conference, 517.
- ILLUMINATING ENGINEERING IN RELATION TO ARCHITECTURE** [Lawrence M. Tye], 33, 42, 88 ; [Sir John Herbert Parsons], 39 ; [W. R. Rawlings], 39 ; [S. Hurst Seager], 40 ; [L. Gaster], 41 ; [Paul Waterhouse], 42 ; [P. J. Waldram], 42.
- Industrial Designs, Scheme for Improvement of, 566.
- Inge, Dean : Address at Commemoration Service at St. Paul's Cathedral, 268.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- Jacob, Sir Lionel : Architecture and Architects in India, 305.
- Jones, Francis : Registration of Architects, 223 ; Speech at Edinburgh Conference Banquet, 533.
- Joseph Delissa : Registration of Architects, 224 ; BUILDING HEIGHTS AND ANCIENT LIGHTS, 477, 495.
- Jourdain, M. : English Decoration and Furniture of the later Eighteenth Century, 350, 398.
- Keen, Arthur : The R.I.B.A. War Memorial, 45 ; The Lighting of Picture Galleries and Museums, 321 ; Annual Report, 469 ; Professional Men in Russia, 471 ; The President and the Allied Societies, 501 ; Speech at Edinburgh Conference, 528 ; The President's approaching Retirement, 536 ; Speech at Presentation to Mr. Paul Waterhouse, 590.
- Kenyon, Sir Frederic G. : Vote of Thanks to President, 5.
- Knott, Ralph : THE NEW LONDON COUNTY HALL, 165, 187.
- Lanchester, H. V. : ARCHITECTURE AND ARCHITECTS IN INDIA, 293, 307 ; The First Regional Planning Scheme (review), 385 ; The Place of Architecture in City Development, 522, 528 ; The Planning of the Modern City (Review), 646.
- Laurie, Professor A. P. : The Preservation from Decay of Stone on Buildings, 212 ; The Preservation of Carvings and Mouldings in Ancient Buildings, 624.
- LAW OF BUILDING OUTSIDE LONDON, THE [A. N. C. Shelley], 93, 152, 194 ; [W. E. Hart], 145 ; [Major Harry Barnes], 146 ; [I. G. Gibbon], 147 ; [Francis Hooper], 148 ; [A. O. Collard], 148 ; [H. D. Searles-Wood], 149 ; [W. R. Davidge], 150 ; [A. Alban H. Scott], 150 ; [Horace W. Cubitt], 151 ; [C. A. Daubney], 152 ; [Paul Waterhouse], 152.
- Legal : Claim for Fees : Robert John Thomson, architect, plaintiff v. Gwynnes Engineering Co., Ltd., and Gwynnes, Ltd., defendant, 160 ; The Albion Iron Co., Ltd., plaintiff v. Edwin J. Sadgrove, architect, defendant, 432 ; Building Owners' Liability for Quantity Surveyors' Charges, 565 ; [W. E. Watson], 653.
- Leverhulme, Rt. Hon. Viscount : Vote of Thanks to President, 204.
- Library, The : Notes by Members of the Literature Committee on Recent Acquisitions, 19, 59, 254, 561 ; Presentations : [by Mr. Charles H. Heathcote], 348 ; [by Mr. A. W. Smallwood], 394 ; [by Mr. C. F. Bell], 394 ; [by Señor Pablo Gutiérrez y Moreno], 420 ; [by Mr. Alexander Young of *The Surveyor in Four Books* (William P. Steel)], 502.
- Licentiates, Reinstatement of : Reginald W. Jackson, 22 ; John Brown, 22 ; Hugh Campbell, 199 ; J. Ross Wills, Ernest Sprankling, E. H. Wigley, A. H. Barnes, C. Procter Sherwin, 327 ; D. Hoets, F. Howarth, J. R. Musto, 355 ; K. B. Spurgin, 403 ; William Evans, 471 ; J. Caughey Walker, 568.
- Licentiate R.I.B.A. [Henry Elwig], 419.
- Licentiates of the R.I.B.A. The Association of [John E. Yerbury], 537.
- Lighting of Picture Galleries and Museums, The [S. Hurst Seager], 20, 57, 121, 256, 258 ; [R. Langton Cole], 20 ; [William and Segar Owen], 21 ; [G. Northover], 59 ; [Discussion], 318 ; [Wm. Woodward], 318 ; [Sir Charles Holmes], 319 ; [Sir Richard Paget], 319 ; [The Earl of Crawford and Balcarres], 319 ; [A. Dunbar Smith], 320 ; [A. T. Bolton], 321 ; [Arthur Keen], 321 ; [Paul Waterhouse], 322 ; [P. J. Waldram], 322 ; [Edward M. Gibbs], 323.
- Ligorio of Naples, Rome and Ferrara, Pirro [C. A. Harding], 629.
- Lister Ward, The [W. A. Pite], 652.
- Liverpool University Degree in Architecture, 314.
- Lloyd, T. Alwyn : Housing Achievements, 1919 to 1922, 351.
- London Building Act, 1894 : Party Structures [J. Douglas Scott], 288 ; Reform of, 598.
- London and Paris [H. Heathcote Statham], 57.
- London County Council and Post-War Housing, The : [Chadwick Public Lecture by G. Topham Forrest], 256.
- LONDON COUNTY HALL, THE NEW [Ralph Knott and W. E. Riley], 165, 327 ; [F. R. Anderton], 187 ; [Andrew T. Taylor], 187 ; [Beresford Pite], 188 ; [H. E. Mitchell], 419.
- Lovell, Percy W. : The Wren Bicentenary Commemoration Visits, 277.
- MacAlister, Ian : Résumé of the Proceedings at the Edinburgh Conference, 535.
- Macartney, Mervyn : Recent Investigations at St. Paul's Cathedral, 267.
- Markham, John H. : Reinforced Concrete [review], 57 ; Manual of Reinforced Concrete [review], 288.
- Marks, Percy L. : R.I.B.A. Academic Dress, 465.
- Marwick, T. P. : Edinburgh : Its Rise and Progress, 518 ; Speech at Edinburgh Conference Banquet, 532.
- Mediaeval Wall Paintings [A. R. Powys], 190.
- Members : Application for Election, 63, 163, 358, 655 ; Nominations, 28, 119, 231, 434 ; Election of, 90, 164, 292, 507 ; Reinstatement of [Fellows] G. O. Scorer, 22 ; T. Butler Wilson, 199 ; Alfred Arthur Cox, 403 ; Cecil A. Sharp, 568 ; [Associates] Harold Burleigh, 155 ; Harry Thomas Bill, 199 ; C. R. Winter, 355 ; J. W. Cockrill, 403 ; F. W. Wade, 471 ; Retirement of : [Fellows] Harry Sirr, 120 ; W. M. Dowdall, 120 ; C. H. Brodie, 120 ; Alexander Ross, 355 ; W. H. Thorp, 355 ; Albert E. Murray, 568 ; E. H. Bourchier, 568 ; I. R. E. Birkett, 599.
- Members' Column : 32, 64, 90, 120, 163, 200, 231, 260, 292, 328, 360, 404, 436, 476, 506, 544, 568, 602, 628, 656.
- Membership of Allied Societies [W. J. Stenner], 255, 317 ; [Sydney Perks], 288, 350.
- Middleton, G. A. T. : Registration of Architects, 220 ; Batalha, the Battle Abbey of Portugal, 550.
- Milne, Oswald P. : The Architecture Club Dinner at Grosvenor House, 354.
- Minty, E. Arden : Anthony Wilson, 567.
- Minutes : Opening Meeting, 6 November, 32 ; 20 November, 64 ; 4 December, 90 ; [Special General Meeting], 18 December, 120 ; 18 December, 120 ; 8 January, 164 ; 22 January, 200 ; [Special General Meeting], 29 January, 232 ; 5 February, 232 ; 19 February, 260 ; [Special General Meeting], 5 March, 292 ; 19 March, 328 ; 9 April, 360 ; 23 April, 404 ; [Special General Meeting] 30 April, 436 ; [Annual General Meeting], 7 May, 436 ; 28 May, 476 ; 11 June, 507 ; 25 June, 544.
- Mitchell, H. E. : The London County Hall, 419.
- Morris, Percy : Modern Problems in Architecture, 555.
- Munby, Alan E. : Registration of Architects, 225 ; Building Materials [review], 254 ; Registration and the York and East Yorkshire Society, 255.
- Murray, Albert H., Retirement of, 471.
- Nash, John, 1752-1835 [W. Hilton Nash], 451.
- Nash, W. Hilton : John Nash, 1752-1835, 451.
- Nelson, C. O. : The Construction of a House [review], 287.
- New's Prints, Mr. E. H. : Presentation to Institute, 22 ; Reproductions of, 74, 76, 77, 80, 81, 84, 85, 115.
- Newbolt, Sir Francis : Vote of Thanks to President, 7 ; Speech, 115.
- Newton, William G. : THEORIES CLASSICAL AND ROMANTIC, 437, 450.
- Northover, George : Picture Gallery Lighting — Mr. Hurst Seager's Method, 59.
- Notices, 28, 63, 89, 119 [Draft Bill on Registration], 156 ; 163, 199, 231, 260, 291, 328, 356, 400, 434, 476, 506, 544, 655.

INDEX

- OBITUARY :** Atkinson, Robert Frank [Cyril A. Farey], 566 ; Baxter, James A. M. [F. W. Dées], 627 ; Beaumont, George, 25 ; Black, William, 25 ; Brown, George T., 197 ; Collier, R. W., 472 ; Crocker, James, 25 ; Darling, Frank, 504 ; Dixon, W., 597 ; Evans, C. Glynn, 197 ; Everard, J. B., 653 ; Fennell, W. J., 472 ; Fleming, G. G., 197 ; George, Sir Ernest, 106 ; [Paul Waterhouse], 107 ; Hall, Edwin Thomas [Paul Waterhouse], 394 ; [W. A. Pite], 396 ; Mathews, J. Douglass, 431 ; Morton, J. H., 596 ; Newman, Arthur Harrison, 25 ; Plymouth, Lord [Sir Reginald Blomfield], 324 ; Poynter, Sir Ambrose, 504 ; Purchase, E. Keynes [Roland Welch], 567 ; Reid, Arthur Harry, 25, [Paul Waterhouse], 119 ; Repullés y Vargas, M. Enrique-Maria, 25 ; Scrymgour, W. H., 567 ; Shannon, Sir J. J., 324 ; Smith Charles Steward, 626 ; Tanner, Augustus W. [R. Stephen Ayling], 626 ; Taylor, H. Ramsey, 472 ; Tree, Philip Henry [A. Austen Hall], 119, [Arthur Crow], 160 ; Trew, George H. M., 504 ; Triggs, Harry Inigo [Mrs. W. de l'Hôpital], 431 ; Walker, Percy, 197 ; Walmsley, Arthur Thomas, 290 ; Waymouth, George, 472 ; Wheeler, Walter, 567 ; Wilson, Anthony, 567 ; Wilson, John Bennie, 197.
- Oliver, Basil : Architecture at the Royal Academy, 421.
- Owen, William and Segar : The Lighting of Picture Galleries and Museums, 21.
- Oxford : A School of Architecture [Hubert C. Corlette, reproductions from E. H. New's Prints], 74.
- Paget, Sir Richard : The Lighting of Picture Galleries and Museums, 319.
- Painting and Architecture [Public Lecture by Walter Bayes], 342.
- Parsons, Sir John Herbert : Illuminating Engineering in relation to Architecture, 39.
- Patriotism and Prices [C. H. B. Quennell], 501.
- Pelton, John V. : Whitgift Hospital Preservation Committee, 316.
- Perks, Sydney : R.I.B.A. Code of Professional Conduct and Practice, 217 ; Registration of Architects, 220, 225 ; Membership of Allied Societies, 288, 350 ; Code of Ethics, 349 ; R.I.B.A. Elections, 464.
- Perks, Mr., and the Emergency Committee [Maurice E. Webb], 418.
- Pite, Beresford : The New London County Hall, 188 ; Registration of Architects, 221 ; Architecture and Architects in India, 304 ; Building Heights and Ancient Lights, 490.
- Pite, Dinner to Professor Beresford, 543, 592.
- Pite, W. A. : The Late Edwin Thomas Hall, 396 ; American Hospital Design, 587 ; The Lister Ward, Royal Infirmary, Glasgow, 652.
- Poulter, Briant : Registration, 537.
- Powys, A. R. : Mediaeval Wall Paintings, 190.
- Practice Standing Committee : Rural By-laws, 399 ; Fees for giving expert evidence, 399.
- Preservation from Decay of Stone on Buildings, The [Professor A. P. Laurie], 212, 624 ; [J. H. Chaundler], 317.
- President, The, and the Allied Societies [Arthur Keen], 501.
- President's Addresses : INAUGURAL MEETING : Some London—and other—Problems, I ; AN ADDRESS TO STUDENTS—Clients, 201.
- Prizes and Studentships : Ashpitel Prize for 1922 [award], 27 ; R.I.B.A. Prizes and Studentships [Deed of Award], 198 ; [Review of Work submitted for : Henry V. Ashley], 206 ; [Pamphlet], 327, 400 ; Rome Scholarship, 290, 543 ; Henry Jarvis Studentship for 1923 [Awards], 543, [Application forms], 568 ; Donaldson Silver Medal, 568 ; R.I.B.A. Alfred Bossom Travelling Studentship, 597.
- Professional Conduct and Practice of Architect, Suggestions Governing, 594.
- Professional Men in Russia [Arthur Keen], 471.
- Public and the Architect, The [Public Lecture by Lord Sumner], 580.
- Public Lectures : Greek Public Buildings [Professor Ernest A. Gardner], 67 ; Architecture : A Necessity or a Luxury? [H. S. Goodhart-Rendel], 309 ; Painting and Architecture [Walter Bayes], 342 ; The Public and the Architect [Lord Sumner], 580.
- Purchon, W. S. : Modern Decorative Art in England [review], 348 ; Dublin of the Future [review], 647.
- Quennell, C. H. B. : Patriotism and Prices, 501.
- Ramsey, Stanley C. : The Architecture of Robert and James Adam [review], 46 ; The First Exhibition of the Architecture Club, 284.
- Ransome, James : Architecture and Architects in India, 303.
- Ravenscroft, Ernest, 544.
- Rawlings, W. R. : Illuminating Engineering in Relation to Architecture, 39.
- Regional Planning Scheme, The First [H. V. Lanchester], 385.
- Registration, The General Election and [Percival M. Fraser], 21 ; Parliamentary Notice to be Lodged, 22 ; Dissolution of Associates' Committee, 28 ; Draft Bill approved by Institute Council, 63, 156 ; Discussion, 219 ; [Paul Waterhouse], 219 ; [J. A. Gotch], 219 ; [Charles B. Flockton], 219 ; [Sydney Perks], 220, 225 ; [G. A. T. Middleton], 220 ; [Bernard Dicksee], 221 ; [Beresford Pite], 221 ; [Gilbee Scott], 221 ; [Major H. C. Corlette], 222 ; [Major Harry Barnes], 222, 224 ; [Percy Thomas], 223 ; [W. W. Scott-Moncrieff], 223 ; [E. Guy Dawber], 223 ; [Josiah Gunton], 223 ; [Herbert T. Buckland], 223 ; [Francis Jones], 223 ; [E. P. Warren], 224 ; [Sir Aston Webb], 224 ; [Delissa Joseph], 224 ; [Alan Munby], 225 ; [Frank Woodward], 225 ; Registration and the York and East Yorkshire Society [Alan E. Munby], 255 ; Letter from Mr. Briant Poulter, 537.
- Register of Craftsmen [Arthur Bartlett], 21.
- Reilly, Professor C. H. : How to Look at Architecture, 116.
- REVIEWS.**—W. R. Lethaby's *Form in Civilization* [W. W. Scott-Moncrieff], 16 ; Sir Lawrence Weaver's *Lutyens' Houses and Gardens* [Charles Spooner], 16 ; *Japanese Temples and their Treasures* (J. Murray Easton), 17 ; Francis Lorne's *Architectural Office Administration* [Max Clarke], 18 ; Arthur T. Bolton's *Architecture of Robert and James Adam* [Stanley C. Ramsey], 46 ; R. J. Harrington-Hudson's *Reinforced Concrete* [John H. Markham], 57 ; Henry R. Arlidge's *Administration of the Town Planning Duties of Local Authorities* [W. R. Davidge], 110 ; Jaggard and Drury's *Architectural Building Construction* [Frank T. Baggallay], 192 ; Austin Brereton's *Literary History of the Adelphi and its Neighbourhood* [A. T. Bolton], 253 ; Wooster Bard Field's *Architectural Drawing* (W. H. Ansell), 253 ; A. P. Laurie's *Building Materials* [Alan E. Munby], 254 ; Mr. and Mrs. C. A. B. Quennell's *Everyday Life in the New Stone, Bronze, and Early Iron Ages* [W. R. Davidge], 286 ; M. Jourdain's *English Decoration and Furniture of the Later Eighteenth Century* [Charles E. Saver], 287, 350, 398 ; Charles Gourlay's *The Construction of a House* [C. O. Nelson], 287 ; George W. Grey's *Building Supervision* [J. R. Hobson], 288 ; Marsh and Dunn's *Manual of Reinforced Concrete* [John H. Markham] 288 ; W. G. Paulson Townsend's *Modern Decorative Art in England* (W. S. Purchon), 348 ; The Doncaster Regional Planning Scheme [H. V. Lanchester], 385 ; Reginald T. Townsend's *The Country Life Book of Building and Decorating* [Ernest B.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- Glanfield], 393; Beeleigh Abbey, Essex [Wykeham Chancellor], 393; Hegemann and Peets' *The American Vitruvius: an Architect's Handbook of Civic Art* [Raymond Unwin], 416; Details of Scottish Domestic Architecture [Herbert Wigglesworth], 417; The Sir Christopher Wren Bicentenary Memorial Volume [Sir Reginald Blomfield], 461; John W. Simpson's Essays and Memorials [W. H. Ward], 463; *Survey of London, Vol. VIII. The Parish of St. Leonard, Shoreditch* (A. E. Richardson], 497; [F. J. Forster], 537; Specification No. 25, 1923 [Edwin J. Gunn], 503; George Hubbard's *Site of the Globe Playhouse* [A. W. S. Cross], 557; Professor Jean Capart's *Egyptian Art: Introductory Studies* [Frank T. Baggallay], 559; W. Douglas Caroe's *Tom Tower, Christ Church, Oxford* [H. P. Burke Downing], 560; Edmund J. Sullivan's *Line: An Art Study* (C. Harrison Townsend], 560; Ramsey and Harvey's *Small House of the Late Georgian Period* [A. Trystan Edwards], 585; *The Architectural Forum* (December number) [W. A. Pite], 587; Louis Reau's *L'Art Russe de Pierre le Grand à nos jours* [R. Boker], 601; The Print Society's Second Publication, 622; Thomas E. Collcutt's *London of the Future* [P. Leslie Waterhouse], 623; Sir Lawrence Weaver's *Sir Christopher Wren* [A. E. Richardson], 623; Nelson P. Lewis' *The Planning of the Modern City* [H. V. Lanchester], 646; *Dublin of the Future* [W. S. Purchon], 647; M. E. Arnaud's *Cours d'Architecture et de Constructions Civiles* [Gordon Holt], 649; Ernest McCullough's *Practical Structural Design* [P. M. Fraser], 649.
- R.I.B.A. Academic Dress [A. J. Healey, W. S. Grice, W. B. Stedman], 398; Discussion at Special General Meeting, 426; [Percy L. Marks], 465; [Anon], 466.
- R.I.B.A. Conference at Edinburgh, 195, 358, [Programme] 470, 517; [Lord Provost Hutchison], 517; Edinburgh: its Rise and Progress [T. P. Marwick], 518; The Place of Architecture in City Development [H. V. Lanchester], 522, 528; Discussion, 526; [T. H. Hughes] 526; [Edward P. Warren], 526; [Professor S. D. Adshead], 526; [Major H. C. Corlette], 527; [Professor Patrick Abercrombie], 527; [Herbert A. Welch] 528; [Arthur Keen], 528; The Conference Banquet, 528; [J. A. Gotch], 529; [Lady Fletcher], 529; [Lord Sands], 530; [Paul Waterhouse], 531; [Lord Alness], 531; [T. P. Marwick], 532; [Francis Jones], 533; List of Members, 534; Résumé of the Proceedings [I.M.], 535.
- R.I.B.A. Election [Sydney Perks], 464.
- R.I.B.A. War Memorial, 22; Unveiling of [Lord Crawford], 44; [Paul Waterhouse], 45; [Arthur Keen], 45; List of Names, 104.
- R.I.B.A.: Annual Dinner, 229; Fund for the Preservation of St. Paul's, 22, 195, 358, 502; Medal for Schools [award], 26; Public Lectures, 190; Street Architecture Medal, 88, 195, 231, 258; Award to Mr. W. Curtis Green, 399.
- Richardson, Professor A. E.: The Survey of London—The Parish of St. Leonard, Shoreditch [review], 497.
- Riley, W. E.: THE NEW LONDON COUNTY HALL, 165, 188.
- ROYAL GOLD MEDAL: Presentation to Sir John J. Burnet, 509; Address by the President [Mr. Paul Waterhouse], 509; Sir John Burnet's reply, 513; M. J. Godefroy, 514.
- Rural By-laws, 399.
- Russian Art of the Petersburg Period [R. Boker], 601.
- Sands, Lord: Speech at Edinburgh Conference Banquet, 530.
- Sayer, Charles E.: Exhibition of Contemporary British Architecture, 87; English Decoration and Furniture of the Later Eighteenth Century [review], 287, 350; Strawberry Hill, 607.
- Seager, S. Hurst: The Lighting of Picture Galleries and Museums, 20, 57, 121, 256, 318, 322; Illuminating Engineering in Relation to Architecture, 40.
- Scholarship for the Study of Modern Architecture in the United States, Open, 400.
- Scott, A. Alban H.: The Law of Building outside London, 150.
- Scott, J. Douglas: London Building Act 1894—Party Structures, 288; Water Board Regulations, 503.
- Scott, W. Gilbee: Registration of Architects, 221.
- Scott-Moncrieff, W. W.: Form in Civilisation [review], 16; Registration of Architects, 223; The House of Cards, 391; Building Heights and Ancient Lights, 492.
- Searles-Wood, H. D.: The Law of Building outside London, 149.
- Self-Expression in Art [C. F. A. Voysey], 211.
- Shelley, A. N. C.: THE LAW OF BUILDING OUTSIDE LONDON, 93, 152, 194.
- Simpson, F. M.: Three Chancel Arch Screens, 545.
- Simpson, John W.: Vote of Thanks to Sir Arthur S. Cope, R.A., 7.
- Skinner, Sir Sydney: Building Heights and Ancient Lights, 489.
- Slater, Dinner and Presentation to Mr. John, 562.
- Smith, A. Dunbar: The Lighting of Picture Galleries and Museums, 320.
- Smoke and Noxious Vapours Abatement [W. E. Vernon Crompton], 55.
- Spooner, Charles: Lutyens' Houses and Gardens [review], 16.
- Standard Method of Measurement, 400.
- Statham, H. Heathcote: London and Paris, 57.
- Stedman, W. B.: R.I.B.A. Academic Dress, 398.
- Steel, William P.: The Surveyor in Four Books, 502.
- Stenner, W. J.: Membership of Allied Societies, 255, 317.
- Strand-on-the-Green, 563.
- Strawberry Hill [Charles E. Sayer], 607.
- Streetfield, G. E.: THE HAMMERSMITH HOUSING SCHEME, 329, 341.
- Sumner, Lord: The Public and the Architect [Public Lecture], 580.
- Survey of London: Parish of St. Leonard, Shoreditch [Professor A. E. Richardson], 497; [F. J. Forster], 537.
- Sutherland, G. A.: The Acoustics of the Auditorium, 608, 637.
- Swinton, Captain G. S. C.: Architecture and Architects in India, 307.
- Taylor, Andrew T.: The New London County Hall, 187.
- Territorial Army, The, 564.
- THEORIES CLASSICAL AND ROMANTIC [William G. Newton], 437, 450; [Professor A. M. Hind], 446; [Lord Justice Warrington], 447; [G. Baldwin Brown], 448; [F. R. Hiorns], 448; [A. S. G. Butler], 449; [W. E. Vernon Crompton], 450; [Paul Waterhouse], 450.
- Thomas, Percy: Registration of Architects, 223.
- Tickle, Arthur G., 654.
- Tints and Towns [Rt. Hon. J. R. Clynes], 191.
- Townsend, C. Harrison: Line—An Art Study [review], 560.
- Trade Catalogues, 567.
- Tye, Lawrence M.: ILLUMINATING ENGINEERING IN RELATION TO ARCHITECTURE, 33, 42, 88.
- University of London, University College, Prize List, 564.
- Unwin, Raymond: The Hammersmith Housing Scheme, 338; An Architect's Handbook of Civic Art [review], 416; Building Heights and Ancient Lights, 491; The Gothenburg International Town Planning Exhibition and Conference, 621.
- Visit to Messrs. Farmer and Brindley's Workshops [Arthur Welford], 195.
- Voysey, C. F. A.: Self-Expression in Art, 211.

INDEX

- Walcot's Restoration of Ancient Temples, Mr. : [William Harvey], 344.
- Waldrum, P. J. : Illuminating Engineering in relation to Architecture, 42 ; The Lighting of Picture Galleries and Museums, 322 ; Building Heights and Ancient Lights, 495 ; Window Design and the Measurement and Predetermination of Daylight Illumination, 539.
- Ward, W. Henry : Who is the Architect ? 194 ; Wren Exhibition at the R.I.B.A., 271 ; Wren Exhibition at Oxford, 276 ; Essays and Memorials [review], 462.
- Warren, Edward : Inaugural Lecture at Oxford, 89 ; Appointed Representative of the Institute on the Joint Archaeological Committee, 115 ; Registration of Architects, 224 ; The Architecture of Provincial France, 413 ; Speech at Edinburgh Conference, 526.
- Warrington, Lord Justice : Theories Classical and Romantic, 447.
- Water Board Regulations (J. Douglas Scott, H. V. Milnes Emerson), 503.
- Waterhouse, Paul : INAUGURAL ADDRESS —Some London and other Problems, 1, 7, 22 ; Votes of Thanks by Sir Frederick G. Kenyon, 5, and Sir Francis Newbolt, 7, 115 ; Illuminating Engineering in relation to Architecture, 42 ; The R.I.B.A. War Memorial, 45 ; Contemporary British Architecture, 65 ; Speech at Opening of Exhibition, 87 ; The Late Sir Ernest George, 107 ; Arthur H. Reid, 119 ; The Law of Building outside London, 152 ; Speech at Leicester Society of Architects, 196 ; Clients—AN ADDRESS TO STUDENTS, 201 ; Registration of Architects, 219 ; Some Observations on the Character and Genius of Sir Christopher Wren, 261 ; Elected Honorary Member of the Architectural League of New York, 290 ; The Lighting of Picture Galleries and Museums, 322 ; The Building Trade Crisis, 350 ; The Late Edwin Thomas Hall, 394 ; The Architecture of Provincial France, 415 ; The Housing Bill, 418 ; Theories Classical and Romantic, 450 ; Annual Report, 469 ; Presenta-
- tion of ROYAL GOLD MEDAL to Sir John J. Burnet, 509 ; Speech at Edinburgh Conference Banquet, 531 ; Manchester War Memorial Competition, 565 ; Speech at Presentation Ceremony, 591.
- Waterhouse, Paul : Approaching Retirement of [Arthur Keen], 536.
- Waterhouse, Presentation to Mr. Paul, M.A., Past President, 590 ; Speech by Mr. Arthur Keen, 590 ; Mr. Waterhouse's Reply, 591.
- Waters, W. Percy : The Hammersmith Housing Scheme, 338.
- Watson, W. E. : Building Owner's Liability for Quantity Surveyor's Charges, 653.
- Webb, Sir Aston : Registration of Architects, 224 ; Advisory Fine Arts Commission, 417 ; Honorary Doctor's Degree from Cambridge University, 543.
- Webb, Maurice E. : The Wren Bicentenary Visit to Cambridge, 279 ; Mr. Perks and the Emergency Committee, 418.
- Welch, Herbert A. : Speech at Edinburgh Conference, 528.
- Welch, Roland : E. Keynes Purchase, 567.
- Welford, Arthur : Visit to Messrs. Farmer and Brindley's Workshops, 195 ; Housing the People, 625.
- Westminster Hall Roof [William Harvey], 8 ; Repair of [Sir Frank Baines], 14.
- Whitgift Hospital, Croydon [F. R. Hiorns], 109, 225, 429 ; Preservation Committee [John V. Pelton], 316.
- Who is the Architect ? [W. Henry Ward], 194.
- Who's Who in Architecture 1923, 327 ; [F. Chatterton], 355.
- Wigglesworth, Herbert : Details of Scottish Domestic Architecture [review], 417.
- Wilson, Malcolm : The Blueing of Coniferous Timber, 111.
- Window Design and the Measurement and Predetermination of Daylight Illumination [P. J. Waldrum], 539.
- Woodward, Frank : Registration of Architects, 225.
- Woodward, Wm. : The Lighting of Picture Galleries and Museums, 318 ; Annual Report, 467.
- Worthington, Professor Hubert, 596.
- Wren, Bicentenary of the Death of Sir Christopher, 22, 64 ; [Members of the Grand Committee], 118 ; [Programme], 230 ; Some Observations on the Character and Genius of Sir Christopher Wren [Paul Waterhouse], 261 ; The Artist and the Man [Sir Reginald Blomfield], 264 ; Recent Investigations at St. Paul's Cathedral [Mervyn Macartney], 267 ; Address by Dean Inge, 268 ; Exhibitions : At the R.I.B.A. [W. Henry Ward], 271 ; At the Record Office, Chancery Lane, [Arthur T. Bolton], 275 ; At Oxford [W. Henry Ward], 276 ; Visits : [Percy W. Lovell], 277 ; [Maurice E. Webb], 279 ; Banquet : List of Guests and Members, 279 ; Wren's Attitude of Mind [W. H. Ansell], 281 ; St. Paul's Roof Timber from Welbeck, 281 ; In Praise of Portland Stone [James Bone], 282 ; Letter from the Fine Arts Federation of New York, 283 ; The Architectural League of New York, 314 ; A Spanish Appreciation of, 315 ; Bicentenary Celebration at Cardiff, 315 ; Royal Victorian Institute of Architects and the Bicentenary, 315 ; Sir Christopher Wren's Carpentry [Henry M. Fletcher], 388 ; The Selborne Society and the Wren Bicentenary Celebrations, 400.
- Wren Memorial Volume, List of Contributors, 259 ; Review by Sir Reginald Blomfield, 461 ; Wren Memorial Volume and the U.S.A., 543.
- Wren Society, The, 538.
- Yerbury, John E. : Licentiates and the Charter and By-laws, 465 ; The Association of the Licentiates of the R.I.B.A., 537.

List of Illustrations

- Acoustics of the Auditorium, The : Diagrams, 610, 614, 638-645 ; St. Paul's Cathedral, Detroit, 619 ; House of Representatives, Rhode Island State Capitol, 620.
- Adam, The Work of Robert and James : Original Drawing of Bridge by Robert Adam, 46 ; Newby Hall, Entrance Front, 47 ; Syon House, Entrance Gateway and Screen, 48 ; Original Sketch Design by Robert Adam, 49 ; Brasted, the Portico and Garden Front, 49 ; David Hume's Tomb, 50 ; Chandos House, the Hall, 51 ; Mellerstain, the Staircase Hall, 52 ; Kenwood, Hampstead, 53.
- Architecture and Architects in India : The Rock-cut Temples at Ellora (8th to 10th century), 293 ; The Temple of Tangore—Typical Work of the Tenth and Eleventh Centuries, 295 ; Temple of Panchalinga Deva, about 1100 A.D., 295 ; View from South-west of the Shrine Wall and Sikkha of the Temple of Doddhusappa at Dainbal, 296 ; Bai Harir's Well, Ahmedabad, 1501 A.D., 296 ; Palace of Raja Mansigh, Gwalior—Early Sixteenth Century, 297 ; A Street in Lashkar, Gwalior—Nineteenth Century, 297 ; Nineteenth Century Stone-built Houses, Lashkar, Gwalior, 298 ; Domestic Architecture : A Street in Baroda, 298, 301 ; House in Ujjain, 301 ; Houses in Nagpur, C.P., 302.
- Architecture of Provincial France, The : Cahors, Pont Valentré, 405 ; Chartres Cathedral, S. Transept from S.W. Tower, 407 ; Church at Le Dorat, 407 ; Guérande, Street Decorations for Corpus Christi, 408 ; Monpazier, Under the Arcades, 408 ; Montmorillon (Vienne) Hotel de Moussac, 410 ; Brantôme, the River Dronne, 410 ; Tours Cathedral, Staircase in N.W. Tower, 411 ; Monpazier, the Market Place, 412.
- Architectural Education a Century Ago : Drawing of Staircase in the Marquess of Buckingham's House in Pall Mall, 570 ; Drawing of the Staircase at Carrington House, Whitehall, 570 ; Pencil Drawing made at Athens, 572, at Rome, 572 ; Pencil Drawing of the Propylea at Athens, 573 ; of the Acropolis from Hadrian's Temple at Athens, 573 ; Pencil Drawing of the Temple of Fortuna Virilis at Rome, 575 ; General View of Siena, 575 ; Fitzwilliam Museum, Cambridge, 578.
- Batalha, the Battle Abbey of Portugal : Founder's Chapel (Central Tomb : Dom João I and D. Philippa, Sister of Edward III of England), 551 ; Fountain in the Great Cloisters, 551 ; Entrance to Unfinished Chapel, 553 ; Clerestory, Unfinished Chapel, 554.
- Blueing of Coniferous Timber, The : Photograph showing appearance of Blueing in a recently felled tree, 113.
- Building Heights and Ancient Lights : Diagrams, 479, 481 ; West India House, Leadenhall Street, 483 ; Rutland Court, Knightsbridge, 483 ; Coburg Court Hotel, Bayswater, 483 ; 109, Kingsway, 483.
- Chancel Arch Screens, Three : St. Mary's, Stebbing, 545, [diagrams]
- 546, 547 ; Great Bardfield Church, 547.
- Trondhjem Cathedral : Plan, 548 ; East End of Choir in 1886, 549.
- Greek Public Buildings : Pergamon : The Great Altar (restoration), 67 ; Pergamon (restoration), 70, 71.
- Hammersmith Housing Scheme, The : Viola Square, 329 ; Lay-out plan of Garden Suburb, northern area, 331 ; Lower Mall, 331 ; Views, 332, 335, 336.
- Illuminating Engineering in relation to Architecture : Diagrams, 36, 37.
- Lighting of Picture Galleries and Museums : Diagrams, 58, 125, 132, 133, 134, 137, 143, 144 ; The Top-Side-Lighted Method as carried out in the Sergeant Art Gallery, Wanganui, New Zealand, 121 ; The Ryks Museum, Amsterdam, 122 ; Mappin Art Gallery, Sheffield, 124 ; View Looking North in Newly Roofed Room in the Wallace Collection, Top-Lighted, 125 ; Sergeant Art Gallery, Wanganui, New Zealand, 126 ; The Miniature Room, Sergeant Art Gallery, 127 ; The Soane Museum, 128 ; The Madonna Ansiedel, National Gallery, 129 ; Edinburgh Art Gallery, 130 ; Side-lighted Room in the Louvre, 131 ; The Tate Gallery, 136 ; The Fitzwilliam Museum, 136 ; The Dulwich Gallery, 136 ; Palais des Beaux Arts, Brussels, 138 ; The Grand Palais, Paris, 139 ; The National Gallery, Room 25, 140 ; The Incredulity of St. Thomas, National Gallery, Central Hall, 140 ; Shepherd Piping, Wallace Collection, 141 ; Picture in Pitti Palace, 142 ; Rooms in the Grand Palais, Paris, 143.
- Logorio of Naples, Rome and Ferrara, Pirro : Villa Pia, 631, [plan] 632 ; The Villa d'Este, Tivoli, 629 ; S. Giovanni in Laterano, 633 ; The Vigna of Pope Julius, 635.
- London County Hall, The New : The County Hall, 165 ; View of Former Buildings on the Site, 167 ; Block Plan of Site, 168 ; General View from South, 171 ; General View from South showing Inundation, 171 ; Radiating Steel Beams in Floors of Crescent Block, 172 ; Steelwork in Roof Construction, 172 ; View of Building from the Air, 175 ; View from the Southeast, 176 ; The River Crescent and Members' Terrace, 177 ; Centre of Belvedere Road Front, Showing Main Entrance, 178 ; Plan of Principal Floor, 181 ; The Council Chamber (unfinished), 182 ; The Ceremonial Staircase looking towards the Council Chamber, 185 ; Large Committee Room, 186.
- Nash, John, 1752-1835 : Portrait of John Nash by Sir Thomas Lawrence at Jesus College, Oxford, 451 ; Plan of the Improvements at Regent's Park designed by John Nash, 453 ; Notre Dame et à Pont Rouge, 454 ; Cumberland Terrace, Regent's Park, 454 ; The Quadrant and Part of Regent Street, 457 ; Waterloo Place and Part of Regent Street, 457 ; Portrait Bust of John Nash by W. Behnes, 458 ; Vue de la Seine, 460.
- Oxford : A School of Architecture : The Towers of Oxford, 74 ; Christ Church,
- 76 ; The College of St. Mary Magdalene, 77 ; Queen's College, 77 ; Oriel College, 80 ; Balliol College, 81 ; New College, 81 ; Exeter College, 81 ; The King's Hall and College of Brasenose, 81 ; Merton College, 84 ; University College, 84 ; Central Buildings of the University, 85 ; Lincoln College, 85 ; Wadham College, 85.
- Preservation from Decay of Stone on Buildings, The : Portion of Elgin Cathedral, 214 ; Stone split in half and scaling, 214 ; Destructive action of a Lime Wash tearing away the Stone, 215 ; Stone in Tintern Abbey covered with loose scales, 215.
- Royal Gold Medal, The : Portrait of Sir John J. Burnet to face p. 509 ; General Accident, Fire and Life Assurance Co.'s Buildings, Aldwych, W.C., 511 ; Institute of Chemistry, Russell Square, General View, 512 ; Fine Art Institute, Sauchiehall Street, Glasgow—Interior, 512 ; Kodak, Ltd., Kingsway, 514 ; Adelaide House, London Bridge, 515.
- R.I.B.A. Conference in Edinburgh, The : Edinburgh [Engraving], 517.
- R.I.B.A. War Memorial : Tablet, 105.
- Russian Art of the Petersburg Period : The Exchange, Petrograd, 601 ; Tauride Palace, Petrograd, 602 ; Arkhangelskoe, near Moscow, 602 ; The Academy of Fine Arts, Petrograd, 604 ; Castle of St. Michael, Petrograd, 604 ; Colonnade of the Alexander Palace, Tsarskoe Selo, 605 ; The Admiralty, Petrograd, 606.
- Small Houses of the Late Georgian Period : Kent House, 586.
- Smoke and Noxious Vapours Abatement : Somerset House [Quadrangle], Portland Stone Cornice, 55 ; Houses of Parliament [Cloisters], Caen Stone Plinth, 56.
- Survey of London, The : The Parish of St. Leonard, Shoreditch : The Geffrye Almshouses, Exterior of Chapel, 498 ; Lead Cistern Front, from the White Swan, 499.
- Walcot's Restorations of Ancient Temples, Mr. : The Temple of the Sun at Baalbec, 344 ; Temple at Selinunte, in Sicily, 345 ; The Temple of Apollo at Thermos, 346 ; An Egyptian Palace, 347.
- Westminster Hall Roof : Models designed by Mr. William Harvey, 10 ; Conjectural Restoration of Roof, 11 ; Constructional Drawing showing Jointing, 13.
- Whitgift Hospital, Croydon, 108.
- Window Design and the Measurement and Predetermination of Daylight Illumination : Diagrams, 540.
- Wren Bicentenary, The Sir Christopher : Boxwood Carving of Sir Christopher Wren by Grinling Gibbons, frontispiece to face 261 ; St. Paul's Cathedral, 272, 273 ; The Steeple of St. Bride's, Fleet Street, 273 ; Greenwich Hospital, Scheme for Lay-out, 274 ; East Front of the Library of Trinity College, 276.
- Wren's Carpentry, Sir Christopher : Colonnade under Trinity Library, 388 ; Diagrams, 389, 390.



EIGHTY-NINTH SESSION 1922-1923

Some London—and Other—Problems

Inaugural Address

By the PRESIDENT, Mr. PAUL WATERHOUSE, M.A., delivered at the General Meeting,
6 November 1922

IT is customary to have a subject, but why it should be called a subject I do not know. If a subject is a thing or person in subjection, the word is inappropriate to the theme of an address. For, so far from being the obedient servant of the speaker, it is his tyrannous master, or if in any sense beneath his feet it is as a devil-possessed carpet beyond whose borders he dare not tread, and whose pattern is a kind of maze that regulates his dance.

So if to-night I seem more of a wanderer than the keeper of a beaten track, my excuse is that, relying on the derivation of the word subject, I mean to keep the thing in subjection.

London is ever with us. Architecture is ever with us. The two are but synonyms for mystery and charm, for doubt, hope, wonder and infinite consolation.

No traveller can help comparing his London with other capitals; and if, as is happily true, he always comes back to London to find a welcome and to realise fresh beauties, he none the less is aware that there are some things in which London falls short of the spirit, the habits, the ideals of other places.

Some while ago there was a debate as to what

should be the motto of the London County Council armorial bearings. My own suggestion was "Keep off the Grass."

In suggesting it, I suggested no reflection on the County Council itself, but rather on a spirit which seems to threaten all those who find themselves in charge of our town. It is a spirit which, happily, is on the wane, and I believe that the County Council itself is contributory to its gradual extinction. I hardly know how to define it except by example and analogy. The simplest example is Paris. Paris, like us, has a river—a wilder, larger, less tameable river. But would anyone believe, who had not seen it, that in spite of embankments in solid masonry, higher and even more solid than our own, big trees of forest growth grow between the embankment and the river's edge?

Those who have seen these trees and that shore know also that men may, and do, go and fish on that river bank, and that the parapets of the embankment are beset—I might say decorated—by a mile of bookstalls.

Here are two things impossible in our London: the permission given to a great rural force to continue the force of its rural nature in the heart of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

town culture, and the permission given to the free-lances of an ancient trade to play their business elsewhere than in orthodox shops.

I know all about the excellent reasons which govern our behaviour, and all the sensible arguments which can explain it. "The Thames banks are muddy, not shingly." "Access to the water leads to suicide and accidents." "Trees wouldn't grow by the water's edge." "Our river is tidal; theirs isn't." "Irregular trade once permitted would extend all over London." But all these arguments are not really to the point: the fact is (and we *know* it) that if we woke up one morning and found that the Thames had become the Seine, we should have those trees cut down, we should send those fishermen to the police court, we should close the access to the banks, and Parliament itself would legislate for the removal of those bookstalls. And why? Simply because the whole thing is too free and easy for our ideas of propriety.

The fact is, I suppose, that we have a kind of protestantism or puritanism in our ideas of town propriety, and we certainly cherish (avowedly or not) a sense that there is a normal kind of rigour which suits a town, out of which country (which is to us a sort of abnormality) must be excluded. That is why our suburbs are largely hideous.

Put it another way. Paris is a large—a very large—country town. London, however much you were to reduce its size, could never be a country town. It does not differ in degree, but in kind.

Richmond Park, barring a certain superfluity of railings, may be looked on as being almost a miracle. That anything so like untouched nature should exist so near London is almost scandalously delightful. It is, I suppose, about the limit. Imagine another night-time transformation: conceive Richmond Park taking the place of Hyde Park. What would happen in the morning? I think it would be at once closed for necessary alterations.

Versailles is the same distance from Paris that Hounslow is from London. Drive from Versailles to the capital through St. Cloud, and you will not dare to tell me that the miles of unfenced woodland through which you pass would be permitted on the Hounslow Road.

There is undergrowth in the Bois de Boulogne, literally undergrowth. If it were to spring up in Regent's Park, what would happen? Miles of unclimbable iron hurdles, and a penny on the income tax to pay for them.

The man, if there is one, who has walked along the banks of the Regent's Canal from its harbour mouth to the Great Central goods station; the men who go into Neville Court trembling for fear lest the great and tender treasure there be gone; the few who have found the one only spot on the Middlesex side of the Thanes where one can wet foot on the river's edge: these men will know what I mean by that little touch of unrestraint which, with the best intentions in the world, we sinother.

If you have ever made a water-colour sketch of St. Mary's Church, hard by the apparently prehistoric dyke which is really the North sewer outfall; if you have ever gazed at the cattle on the Beckton Road flats; if you remember the Piranesi-like wonder of St. John's Square, Westminster, in the 'eighties, or have been unable to tear yourself from Clerkenwell Green, you will know what I mean but cannot express.

There are great times coming for the Surrey side. The County Council office—which I frankly admire—is a pledge of that. The planning of that shore territory has got to be dealt with by somebody, or by some "body," or by chance. May it come to pass that whether the task is intrusted wisely to an individual or expensively to fortune, the result may contain some elements of that freedom which is a joy to poets, and inspiration to artists, and an aid to life.

Region-planning makes one think of axes—not axes to grind, but axes of alignment. I suppose the most famous of axes is that which, starting from the statue of Lafayette, does an unbroken flight of two miles to the Arc de l'Etoile, which, though its visual existence ends there, starts afresh for a four-furlong run to the Porte Maillot, and having there reached the boundary of Paris, takes breath for another 2,000 yards along the Bois de Boulogne, and, to show that it is not exhausted, does a gratuitous rush of nearly a mile to a mound on the farther side of the Seine.* We cannot do such things in London—perhaps we do not want to; but there is no reason why we should make such havoc as we do of some of our small opportunities. It is an ill business hunting for uglinesses in our dear London, so I will give only a hint or two. A pair of the best statues in London, that of the agricultural Duke of Bedford and the classic figure of Charles James Fox, face one another at the distance of a street which is 250 yards in length. At or near Fox's effigy common necessity called for the existence of a lamp-post and

* The President will contribute a note on this subject in the next number of the Journal.—ED.

INAUGURAL ADDRESS

a swan-necked stand-pipe for feeding water-carts. Mere stupidity would suggest that one or both of these blemishes should be placed on the axial line ; rather less stupidity would have placed one horror clear of Fox to the right, the other to the left. Stupidity *in excelsis* would naturally rise to the idea of placing both so as to obscure the view of the toga-robed statesman, each within a foot or so of the axial line.

Shall I confess that it was stupidity *in excelsis* that won the day. It is rather pedantic to suggest that statues serve no purpose but to be seen. Nevertheless I do suggest it.

When the Guards' Memorial in St. James' Park was first proposed the scheme was let loose on the public by the means of an article in *The Times*, accompanied by a careful-looking plan. This plan clearly showed that the intended monument, which was of ridiculous lateral extent, was to be so placed that the view through the Horse Guards archway would permit the vision of one side of it only.

I wrote to *The Times*. The author of the illustrated article at once replied that it was a well-known fact that plans accompanying articles of this kind were not drawn to scale. I admired his powers of defence.

It is the judicious observance of axial lines that gives charm to neighbouring non-axial arrangements. An axis all but respected is of no more æsthetic value than a catch missed in the deep field.

A word of mine let fall just now about the County Council House set me thinking of acoustics, and I couple the two ideas without any but the most sympathetic thought for Mr. Ralph Knott. I would never blame any architect for an acoustic failure in this present year of grace, but I trust that in a year or two's time such failures will be deserving of blame. I am in hope that members of our Institute, in consultation with experts in sound-law, will before long reach such an interchange of national experience as will elevate our present groping insecurity into the region of scientific certainty.

I once built a committee room which was to be a model of acoustic excellence. Into it I crammed every device known to the hand-book of that age as leading to perfect sound conduction. What is more, I cut out of it every known cause of acoustic disturbance. The achievement was a triumph of failure. As cures curtains were only the slightest of alleviation, eight electric candelabra united by chains seemed, instead of baffling the sound waves, positively to vibrate to the voices of the outraged committee men.

But peace came at last by the purchase of an 80-guinea carpet of thick pile. I know, probably you know, that a pulpy wall-paper goes a long way to remedy the trouble, and I am myself experimenting —on a real building, worse luck—with a system of roughened surface.

But, after all, the best buildings for sound seem to be those in which echo is made our friend and not our foe, buildings in which, as in the old Exeter Hall, echo was timed to reinforce every syllable instead of fighting for dear life with the succeeding one or possibly with the next word.

I look forward greatly to more light on this ancient bogey.

It was amusing to note that the correspondence in *The Times* on this subject floated away from the topic of our acknowledged darkness not to light, but to the confused noise of scientists belabouring one another on the general nature of induction from observed phenomena.

During my past year of office the architectural waters of Edinburgh and London have been stirred to their depths by three commotions, one in the northern capital, two in the south. The Edinburgh storm was an affair of tramway wires. Those who have wandered about Edinburgh in early dawns will have regretted in recent years that the trafficless quiet of the twilight was disturbed by a noise as of the clucking of innumerable hens. This was produced by the ceaseless toil of the underground cables chafing under enforced idleness and waiting for the far noisier burden of the tramcars.

Lured by the wish to be rid of this hindrance to poetic thought—or by other wishes—Edinburgh decided for the abolition of underground traction, and pending the invention of a “ wireless ” system the municipality found itself faced with the problem of wire suspension. I was asked to join a movement for protesting against the attachment of the wires—or rather of the wires that support the wires—to buildings, on the ground that the so-called “ rosettes ” or attachment blocks were outrages against architectural decency. The alternatives to rosettes are posts. Now, tramway posts are of two kinds. One sort, when disposed for duty, looks, unfortunately, like a random accumulation of sanitary vent pipes : the other sort is tainted with wrought iron of the kind which owes its prestige solely to the fact that in Victorian days there was a crusade—quite unmerited—against cast iron.

In order to make up my mind on this subject I

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

adopted the line that a question of æsthetics can sometimes be as well decided by the eye as by the brain, so having heard that both rosettes and posts could be seen in full bloom at Leith, I went to Leith. There the question decided itself. I had to choose between yards of municipal "art" scroll-work and a small slab of practical metal. I chose the latter and had, I believe, all the best people in Edinburgh against me. I had never differed from a single Scotsman on any subject before.

London's two thrills have been the Bank of England and Higher Buildings. No one in this room needs any enlightenment upon the nature of these two problems. To take the Bank first. I may explain that it was solely as your President and as the assumed representative of a certain aggregate of cultivated—I didn't say cultured—opinion that my view on the subject was sought and published.

The facts as I see them are very simple, though the problem is very complex.

The Bank, a very beautiful and greatly beloved building, is too small—vastly too small—for the Bank's business.

The Bank's business is of admitted importance, it is, in fact, of such great and national importance that the business man's answer to the problem, viewed without relation to the pleasures and affections of the heart, would be "Rebuild the whole thing from the ground—and from far below the ground."

But you cannot, in a decent country, view even money matters wholly apart from these "pleasures and affections."

Next there come two very interesting factors in the case. The site of the Bank is so consecrated by sentiment, necessity, convenience and habit to the Bank's business that any idea of abandoning the site and choosing a new centre is entirely out of the question. Moreover, were this course adopted we should have to face the further problem that the abandoned buildings would have to become one of three things: 1. The home of some tenant whose needs they would fit unaltered. 2. The home of a tenant who would alter them; or 3, a historic monument. The first is unlikely, the second would be disastrous, and the third is contrary to the spirit of architecture.

What I call the other factor in the case is brought about by the low height of the Bank buildings.

The raising of the walls on the frontages to anything approaching normal city height would lead to interference with the prescriptive rights enjoyed by

ancient light owners in all the surrounding streets. This apparent disability is really a help towards the harmonising of contending motives.

The Bank must increase in size, it must remain *in situ*, it must not violate its well-known architectural countenance, it cannot easily or reasonably heighten its exterior walls, but it can, and I should say must, build buildings of increased height inside the *enceinte* with which the genius of Soane engirdled it.

That there should be a necessity for altering any of the internal courts or any of the interior halls and rooms which are part of its beauty is indeed deplorable, but the deplores of such internal change are but a millionth part of those who would or should suffer by any destruction or mutilation of the exterior. The right rule appears to be that the whole of the engirdling wall should be left undisturbed, expressing in the future as it does express to-day the very spirit of protection or custody, and that if it is impossible to retain unchanged any of the open courts which are among the less known beauties of the interior there should at least be preserved as many as possible of the banking chambers which align the frontage to a depth of some forty feet, leaving the new higher buildings to rise at such a distance from the façades as to render them a kind of keep within the castle. For my own part I deprecate the superposing of any upper growths on the frontage walls themselves, feeling that what Soane designed as horizontal and self-sufficient should not be made a substructure to any upward composition, however ably designed.

And now, with your leave, a word on the Higher Buildings problem. The opinions even of individual architects differ on this subject, but this Institute as a general body spoke on the matter in terms which were as remarkable as they were unmistakable. Why remarkable? Because architecture is an art whose business it is to clothe utility in beauty. What does our motto say, utility for the citizens, beauty for the city? It is our business to balance the utility and the beauty lest either should over-weight the scale. When a man is faced in these balancing exploits with a difficult decision, it not infrequently happens that a coin or two in one scale or the other will help the mind's decision. The Institute's mind must have been fully open to the fact that if it were to throw its influence into the Higher Buildings cause it would undoubtedly open the way to increased opportunities of earning money. In other words, every self-interested motive lay for architects

INAUGURAL ADDRESS

on the side of Higher Buildings. Now the President is the one man in this Institute who doesn't normally vote, and he does as little as he can in the way of influencing others, so that perhaps he may, without indecency, say what he thinks about a vote taken in his presence ; and I take this opportunity of saying (naturally without any reflection whatever on those who voted in the well-meaning minority) that the decision given by this body against the promotion of higher buildings in London was a remarkable and very high-minded example of truth to artistic purpose in face of very cogent and material counter arguments.

Do not let me be misunderstood. It was not a question of moral right and moral wrong with money on the Devil's side. It was a question of æsthetics in a very broad sense, and the side which was willing to sacrifice opportunity for an ideal won.

It is by virtue of my claim to speak without a fixed subject that I spring from Higher Buildings direct to the portrait of Mr. John William Simpson.

Our intention, in the series of portraits to which this painting will to-morrow belong—the series is already assuming the proportions of a respectable picture gallery—our intention, I repeat, is to acquire, often, I fear, at the cost of some generosity on the part of our good brothers the painters, a collection of first-rate works of art as first-rate memorials of architects who should be and may be first-rate. Happily it has been our good fortune up to the present moment to be able to offer as sitters to the portrait painter men whose achievements and fame have been worthy of his work. Our distinguished brother-architect, Mr. Simpson, retaining during his years of presidency some traces of that modesty which it is the obvious duty of a president to set aside, may probably have been prone to decry his own claims. It is our pleasant duty this evening, in welcoming his portrait, to welcome him also to this familiar gathering and to assure him of our pleasure in taking possession of so good a representation of so good a president. Having regard to that modesty which since his departure from the chair he has been at liberty to resume I will be careful of what I say, but as his successor and as a member of his Council, I suppose I am as well qualified as anyone else to speak of the unceasing vigour of his work for the Institute. The Council can never have had a better chairman. His conduct of debate was always firm and fair, his treatment of difficulties always judicious. But these are merely

domestic qualities. Mr. Simpson went much beyond them. His constructive policy was bent upon the improvement of the Institute's position, and we know with what enthusiasm and zeal he laboured in a line of action which many of us thought it dutiful to advance. Nay more. Mr. Simpson, before, during and since his presidency, has always had at heart the relationship which should exist between our English architects and those of friendly countries on the Continent. Equipped with special gifts of intercourse with France, we acknowledge him as the father of that Franco-British union which has already brought the priceless gift of friendship to many men on both sides of the Channel.

Again, we know and realise that during those years which seemed to be devoted almost exclusively to the affairs of our Society, Mr. Simpson was blessed and encumbered with the cares and pleasures of a large practice. How a man with the handicap of several months of ill-health was able physically to cope with so many duties all generously fulfilled is more than some of us can understand. But the task was accomplished, the health was happily restored, the rest—if the renewal of increased professional work can be called rest—was won, and if Mr. Simpson should prove to be the last to whom the honour of belonging to the present series of portraits is accorded, he will have the satisfaction of knowing that he has won his position on the line not merely by the great skill of the painter but by his own deserts. In thanking Sir Arthur Cope for the brilliant performance of his task—and it is my wish here and now to move a formal vote of thanks to him—we welcome the new possession as the presentation of one who, besides being a gifted and very productive architect, showed during his year of presidency, and, indeed, in many other years, a dutiful devotion to this Institute, and an initiative in that devotion, which have been the admiration of his friends, the despair of his rivals and the encouragement of his successor.

Vote of Thanks to the President

Sir FREDERIC G. KENYON, K.C.B. (Principal Librarian, British Museum), in the course of his speech proposing a vote of thanks to the President for his address, said : It is a great honour to be asked to propose a vote of thanks to the President on an occasion such as this. But I think you will admit that the task of commenting upon that address is a little difficult. The President has flitted from subject to subject with so

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

much skill and so much grace that, as I had not any previous intimation of the subjects, I am not prepared to deal with many of them. But it occurred to me that there were at least two points which it would be apposite to refer to, because in submitting this vote of thanks to the President we are also wishing him prosperity in his term of office. There is one event which will fall within that period, and which has at least some connection with one of the subjects with which he dealt : it is that next year we shall be celebrating or commemorating the Bicentenary of the greatest of British architects, Sir Christopher Wren, and it will fall, no doubt, to the President to take a leading part in the commemoration. I imagine every architect must be thirsting for the opportunity which Sir Christopher Wren had. I even thought that the President, in his earlier remarks, would say something to this effect when he talked about the Surrey side of London, would say he was hoping some syndicate of architects would undertake a large conspiracy of arson to burn down the greater part of the City of London. Think what an opportunity there would be for building London to your own minds ! I am not sure what would happen. Supposing you burned down a large section on the Surrey side, comparable with the area covered by the Great Fire of London, would it be given to a single architect —the President of this Institute, for instance, or some other architect—to rebuild it ? Or would it be given to every member of this Institute to build a little of it ? And what would be the result if it were so ?

The President referred to the question of axes in London, and that touched a warm corner in my heart, because, naturally, I think the centre of London, from the artistic point of view, and from most other points of view too, is the British Museum. And I want to recall to your attention the point that a very little alteration of London design would bring the British Museum into several very important axes. You can draw a straight line from Waterloo Bridge to the front of the British Museum ; you have only to pull down the Kingsley Hotel and straighten out Drury Lane, and you would have a magnificent vista from one of the bridges over the Thames to the façade of the British Museum. You have only to do what might have been done with very little extra thought, straighten out Shaftesbury Avenue, and you would have another axial line from Piccadilly Circus to the façade of the British Museum. A few alterations of that kind would bring what, in my opinion, is the finest building in London into proper prominence before the eyes of the British public. But I am afraid that is improbable.

There is another task which might fall upon the President, and which, I think, does fall upon him and on all who hold his office, and that is, to cultivate the sense of tradition in British architecture. I am afraid that, as a member of the public, I, like other people, am

rather confused by the multitude of counsels which are offered to us by art critics and artists of various kinds ; one does not get the guidance from a sense of tradition which one ought to get. I believe that the difficulties which beset architecture, as well as other arts, largely arise from that lack of tradition, which is also a lack of guidance to the public. There are, I take it, two sets of conditions which will produce fine artistic results. One is when there is a widely spread and deeply seated sense of style, both in the public and in the artists, that you get at certain selected historical periods, such as the Greek of the fifth century B.C., or the period of the great Gothic churches, or the period of the Italian Renaissance. But that is a thing which you cannot get by asking for it, and no one can say what conditions will produce it. Failing such conditions, the only safety is in a sound and well-established tradition. And that, I think, can be got. It is like talent as compared with genius : talent you can get, genius you must be thankful for if it comes. It seems to me, as a member of the outside public, that that is one of the chief difficulties and defects in English art, not only in architecture, but in art of all kinds, including literature, at the present time. We are in an unsettled frame of mind : the public does not know what to think, and it does not get guidance from those who are in a position to give it. One wants a greater habit of discipline in the artists themselves. What I should like to see would be a revival of the old principle of the atelier, where you had a master of the craft, whether it was painting, or sculpture, or architecture, attended by a band of followers and pupils who studied his ways and learned all that he had to hand on to them of the tradition of the past, before they set up for themselves. Such a revival would at once strengthen our art and steady our criticism. Suppose that in architecture the leading living architects—however many they may be—had, each of them, a band of followers who were proud to follow them and to be reckoned as their disciples, you would get three, four or five main currents of artistic development, each with a respected leader at its head, each developing one particular line of thought. The pupils would have from their master a sound training in craftsmanship, a sound training in the ideas and principles of art, and then would be free to develop them in accordance with the dictates of their own genius. That is what happened in the great times of painting, and probably in the great times of architecture. It seems to me that the present state of things is perhaps a result of the English tendency to individualism : people are afraid of ranking themselves as the followers of anybody, for fear they should be supposed to be sacrificing their own individuality. It seems to me that all history is against that idea ; the greatest artists have begun as pupils, and have eventually developed their own special line of genius. If we had something of that kind now,

VOTE OF THANKS TO SIR ARTHUR COPE

then the public would get proper guidance in artistic thinking ; they would have, instead of scores, indeed, hundreds of advisers, all being inclined to criticise one another, along three or four main lines of development, and they could choose between them. At any rate, they would be led to think along artistic lines, and their opinions would have the backing of tradition and the history of art and real principles. What I want to say is that I hope this Institute, under the guidance of its present President, will continue to steady and to develop artistic thought in the sphere of architecture ; and in thanking the President for his most interesting address, I ask him to consider these suggestions in the duties of the office which he now holds.

Sir FRANCIS NEWBOLT, K.C., seconded the vote of thanks in a humorous speech, in which he referred to his early association with Mr. Waterhouse at Oxford.

The PRESIDENT : I must thank you very heartily for the patience of your hearing, and for the eloquence of those gentlemen who have been good enough to come here and speak. Sir Frederic Kenyon's suggestions

for a large Metropolitan enterprise are very encouraging. Keeping the British Museum in view, we might do a lot of useful work. I am much interested in his views on architectural education. I begin to think he ought to be in our midst, and not a member of the public, as he called himself. He ought to be inside these walls, sharing with us the problem of education.

About my friend on the left (Sir Francis Newbolt) I must say to you that when those who manage these things told me he was going to speak to-night I had forgotten how he was certain to turn me inside out. But I can only assure you that the process of turning me inside out has been as amusing to me as it must have been to you, and I heartily thank him for the delicacy with which he did it.

I have to draw your attention to the prints lying on the table. These have been very kindly presented to the Institute by the very well-known artist Mr. E. H. New, of Oxford, in recognition of his election as an Honorary Associate. They are a great treasure to us, and I think they will be of great interest to any who would like to look at them.

Vote of Thanks to Sir Arthur S. Cope, R.A.

The PRESIDENT in the course of his address proposed a vote of thanks to Sir Arthur Cope, R.A., for his admirable painting of the portrait of Mr. Simpson.

Mr. JOHN W. SIMPSON (Past President) : Mr. President, my Lord, ladies and gentlemen, it is my privilege to second the proposal of the President that we vote our thanks to Sir Arthur Cope. He and I have been on terms of intimate friendship for more than forty years, many of them years of very close companionship, and I have the greatest admiration both for the man and for his work. So that, although many would have done so with far more ability than I, yet no one could undertake the duty with more sincerity and more pleasure. The work which he has given us is, as the President said, a very beautiful example of his art, and we shall be proud to hang it with those masterpieces of other great painters which we already possess.

I find myself in the very singular position of being faced by two portraits of myself on the same evening. It would be a poor compliment to the artists to assert my own modesty by denying the resemblance of the portraits to the subject ; but I may at any rate be permitted to point out that both the portraits are very striking examples of the great truth that the value of a work of art depends not upon the subject, but upon the treatment of it. So that perhaps we may accept Sir

Arthur Cope's fine painting and the President's kind and delicate word-picture, not so much as a record of what I really am, as evidence of the insight, the thought-reading, which is necessary in portrait-painting of any description, in order that the portrait may represent not so much the actual man but what the artist sees him to be capable of. I only hope that neither artist has, as Mr. Belloc puts it, "strained his mind a little out of shape by the necessity of so great a creative effort." Believe me, I am very well aware of how far I fall short of their ideals. When I reflect upon the little things I have been permitted to accomplish for this Institute, their value appears to me very considerably less than what the President has been good enough to place upon them. I wish to thank the Council for the honour they have done me in placing my portrait beside those of my great predecessors, and for the continuous, unflagging and loyal support which I received from my fellow-members during my years of office. Let me say, Sir, that that encouragement which I received is accorded to you, and will be accorded to you while you are in office, and, I hope, afterwards ; for to stand by and support our President is one of the very finest traditions of the Royal Institute.

I am very happy to second the proposal of a vote of thanks to Sir Arthur Cope.

The vote was carried by acclamation.

Westminster Hall Roof

By WILLIAM HARVEY

The visit of the R.I.B.A. to Westminster Hall on Saturday, 14 October, proved to be of the most instructive character.

The members were courteously received and conducted over the building by the Director of Works, Sir Frank Baines, M.V.O., C.B.E., who explained the main points of its history, structural mechanics, the decay and methods of repair, illustrating his remarks by means of a scale model of the roof. The visitors afterwards climbed the stairs of the great steel stage to the level of the collar beam, and examined the timbers and the judiciously applied steelwork.

The design of the roof and the problems affecting its repair can hardly be grasped in a single visit, and some aspects of the building are noted here, together with two communications from Sir Frank Baines, one on the "Function of the steel trusses" and the other a letter to Mr. F. R. Hiorns [F.J.], explaining the reasons for some of the special methods employed. Doubts have been expressed whether Westminster Hall roof is the largest mediæval roof composed only of timber, but it is at all events essentially a great work of architecture, as well as a piece of construction on a vast scale, for in the design made by King Richard II.'s master carpenter, Hugh Herland, are blended all the elements that go to make a masterpiece.

Daring innovation combines with respect for tradition, a profound knowledge of structural mechanics is evidenced in it along with a fine sense of contour and proportion.

The tyrant King's magnificent taste for a roof in a single span of 69 feet is carried into execution with the utmost attention to rational economy of material and labour, and with all this is an assured mastery of technical detail that gives to the soaring arched principals an appearance of buoyancy and delicacy for all their immense weight and the extraordinary size of the timbers of which they are composed.

To us, too, the roof has the interest of survival from another age and what was virtually another form of civilisation. Even in its own time it stood unique, the epitome of the constructive science of mediæval English arch building and, still a living force, it bears witness to the beauty of direct construction exposed to view and made more interesting by decoration subordinated to the structural purpose. The timber trusses of the roof embody the practice and the theory of a time when the arch and the vault were normal everyday elements of construction here in England as they were in Palestine a few years before the recent war. Here, in 1395, builders could think and talk about the manage-

ment of arches with as great facility as a modern engineer can think about the management of rivets.

The making of arches and vaults must have formed a topic of ordinary conversation for buildings of a scale unprecedented since the works of the ancients were in process of erection all over Europe.

The power of master builders to execute works over great spans, and the mutual emulation of princes prepared both the carpenter and the King for the task at Westminster. When King Richard gave orders to re-roof King William Rufus' Hall the Moorish Kings of Granada had just completed their wonderful palace of the Alhambra and, in Cairo, Sultan Hassan had shown in his new Mosque how a barrel vault could be built in stone and brick over a span equal to that of Westminster Hall.

Notwithstanding the roof is constructed of oak, and not of stone, the way in which the material is used differs immensely from the present day practice of timber construction.

The ideas underlying the posing of the gigantic balks are arch-builders' ideas, a theory of compression and balance is relied upon, and the value of material in a state of direct tension, though acknowledged furtively in a few treenails in some of the joints, is altogether ignored in the arrangement of the main timbers which push and lock together in virtue of their own weight and that of the roof covering.

It must be confessed that all inquirers have not taken this view. To Sydney Smirke, writing in 1835, the roof appeared a simple matter—a collar beam truss with an arch and some other trimmings added for ornament. Others have read into the triangular shapes in which the roof timbers are arranged a kinship to the purposeful "triangulation" of a modern structure of steel.

Experiments with models composed of loose blocks have convinced the writer of the compressive nature of the old roof. The models were designed during a prolonged investigation of the roof after the issue of Sir Frank Baines' masterly report had cleared the ground of the supposition that the framed principals of the roof were in any way akin to a modern triangulated truss of steel. As the timbers and their jointing were exposed to view in the process of the repairs now drawing to completion it became evident that the connections provided by the stubtenons and treenails were utterly unfit to transmit tensile stresses of the magnitude of those generated in the roof, or even to bear the weight of the timbers themselves, since some of these weigh between two and three tons apiece.

Since the principals do not act as modern triangu-

WESTMINSTER HALL ROOF

lated structures and are not provided with connections suitable for the efficient transmission of tensile stress, it follows that the great arch rib (which in fact was found in 1913 to be bearing practically all the weight of each principal) was by no means merely an ornamental feature, as Sydney Smirke described it in 1834.

Thomas Morris, writing in 1871 on the history and principles of Gothic roofs, gives a far more rational exposition of the roof, which he rightly claims to have been "based on a scheme of equilibration." Its invention he attributes to the famous architect William of Wykeham on grounds of general probability. Unlike Sydney Smirke, Thomas Morris is inclined to see in the arch rib the main support of the structure, and considered the hammer beam and hammer post to have been merely the means of loading the arch at appropriate points in its curve, a theory that does not do full justice to their structural functions or explain their gigantic scale since the bulk of the hammer post is enormous and is formed from an oak trunk of exceptional size. Thomas Morris derives the timber roof at Westminster Hall from the tradition of stone arch and gable principals of earlier times, such as those in the Hall of Conway Castle and the aisle of Hartlepool Church.

A carpentry tradition, however, was established in the old roof of the Hall, remaining from the time of William Rufus, and it is more than probable that the new design was suggested by the old one, suitably amended to bring it up to date in detail and in accordance with the improved knowledge of structural science.

The great innovation in King Richard's roof is the avoidance of the two parallel rows of supports which had encumbered the floor of the Hall from the Norman period, and which had permitted the old roof to be formed as a simple affair of posts and beams, somewhat on the pattern, perhaps, of that in the Hall of Leicester Castle, built 1150. The omission of the posts would involve the substitution of an alternative means of support and the device that would naturally suggest itself would be an arch rib. But an arch rib in 1395 was not designed as a true catenary curve rising from a solid support and loaded by hinged vertical struts like a modern steel railway bridge. Gothic arches were never meant to stand alone, but were buttressed and adjusted with other elements external to the main rib. Arches were designed with pointed tops, with curves set out as segments of circles from reasons not at all connected with theories of the line of pressure; and their loading and supporting involved several devices still well understood in the Near East, but now completely out of date in England. The corbel was universally employed by habitual arch builders as a means of minimising the lateral thrust of arches upon their supports at the springing and of combining the lateral thrusts with a vertical load of top-weight at the nearest possible point. Corbel courses known as the *tas-de-charge* formed the foot of the arch

in the great majority of vaulted examples and corbel courses or concrete backed and stiffened the arches' haunches to various heights; in the case of stone arch-and-gable roof trusses the backing, of course, rose to the level of the crown of the arch or was continued as a triangle to the apex of the roof.

A carpenter would not follow masonic practice to the extent of backing his proposed arch rib with horizontal baulks laid one upon another, but would use a skeletonised frame of timber calculated to effect the combined functions of stiffening, balancing and support that are imparted to an arch ring of stone by its corbel courses at the springing and the out-corbelled courses of the masonry it bears.

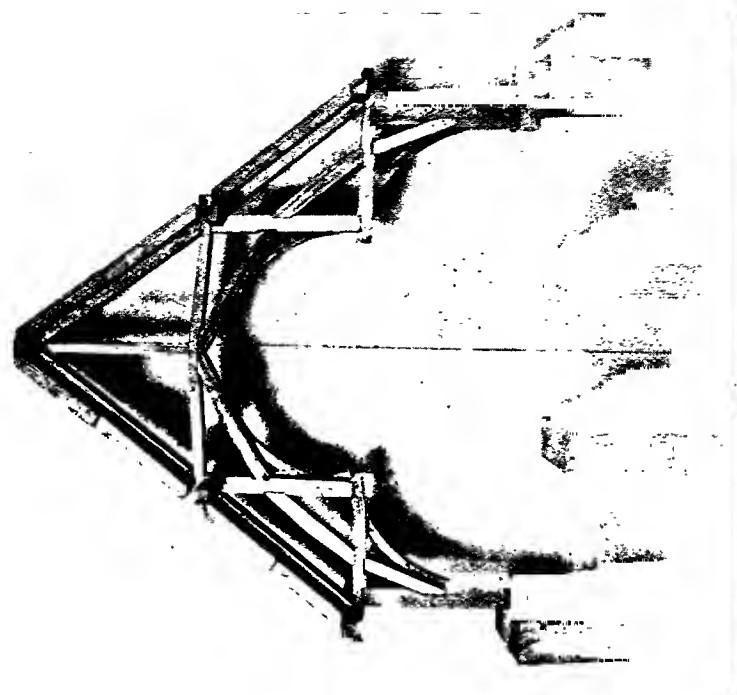
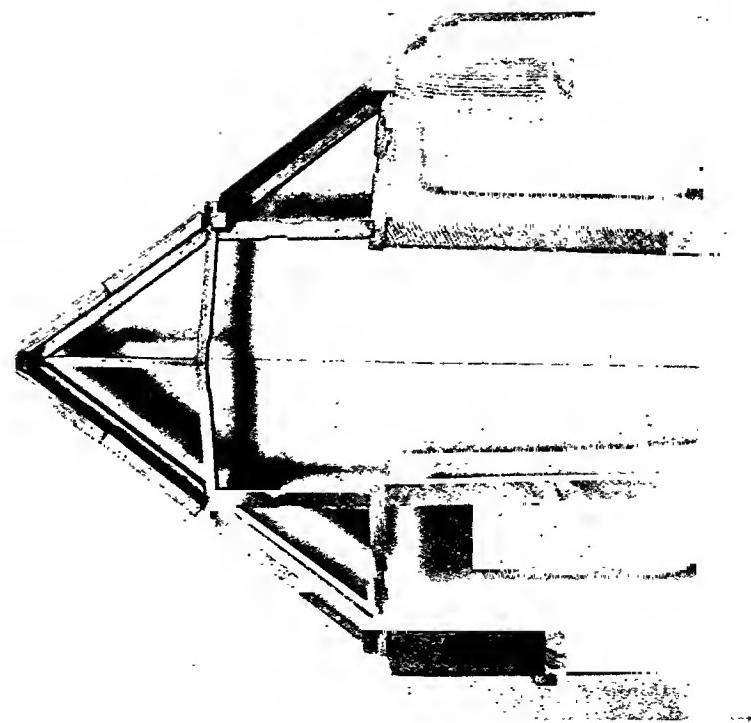
The problem before the King's master carpenter seems to have been—

(1) To substitute a new arch rib of conventional pointed form for the posts of the old roof;

(2) To back and strengthen that arch in the traditional manner of his time with other main timbers on a system of mechanics understood by carpenters and masons alike.

In attacking the second part of his problem he could not fail to examine the possibilities of the arrangement of timbers that had stood for three hundred years in the Norman roof of the Hall itself. This conjecture explains the enormous size of the hammer post on the grounds both of artistic convention and of constructional science. The capitals that decorate the hammer posts at the middle of their length have their prototypes in Norman capitals in the roof of Leicester Castle Hall upon the upward prolongations of the posts rising from the floor. The magnificent carved angels at the ends of the hammer beams are placed where the main capital of the post would have been, at the approximate level of the wall top, where also a main Norman capital exists on the internal supporting posts of the roof of Leicester Castle Hall.

From the constructional point of view the hammer post may be considered as the carpenters' equivalent of the masons' top weight or pinnacle. Where the mason was in the habit of collecting the vertical load of a mass of top weight and the oblique thrust of an arch by means of a corbel course of stone, necessarily of comparatively small projection, the carpenters had established the use of vertical timbers known as ashlar beneath the ends of their rafters to bring the roof pressures on to the safe inner side of the wall. Two wall plates were employed connected by short cross pieces of timber, and this arrangement held good for the common rafters of Westminster Hall itself, where the inner wall plate was made to form part of a great cornice at the wall head as is shown by mortices in the wall ends of the hammer beams just clear of the side walls of the Hall. It will be noticed that the difference between the carpenter's and the mason's method of combating oblique thrust is one of



WESTMINSTER HALL ROOF.

Model of loose blocks designed by Mr. William Harvey to show the probable positions of timbers in the roof of King William II.'s Hall at Westminster.

Model of loose blocks designed by Mr. William Harvey to indicate the compressive and balancing functions of the main timbers of Richard II.'s arched hammer beam roof.



WESTMINSTER HALL ROOF.

Conjectural restoration by Mr. William Harvey, showing cornice and lower ashlar timbers, now lost, and upward camber of hammer-beams. The tracery above the main collar is omitted in the drawing as it is thinner and later in character than that below.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

position and not of principle. In masonry the oblique thrust is applied to the corbel at its free end inside the building and the vertical tail weight of the upper part of the wall or pinnacle a little further towards the outside. The vertical ashlar timber, on the other hand, is placed nearer to the inside and the foot of the sloping rafter to the outside of the wall top.

The designer of Westminster Hall roof seems to have recognised in the upper part of the Norman posts (whose lower part he proposed to omit in his new work) a gigantic ashlar-timber capable of pressing with its own weight and with a moiety of that collected by a great purlin upon the free inner end of the hammer beam. With this weight as counter-balance he set himself to modify the direction of the oblique thrust of the principal rafter. The economy of the device lies in the fact that where the mason's pinnacle does not contribute to the direct support of the building, but merely acts as balance-weight, the hammer post is a balance-weight at the same time as it is made to act as a support in so far as it is propped up from below on the lower curved strut. So valuable is this support, indeed, that later hammer-beam roofs of smaller span have been constructed without the great arch rib and depend upon their hammer beams and lower curved struts for a great part of their strength.

The minor traceries of the roof principals bear out the general similarity to an arched structure stiffened and supported by a wall.

From the back of the arch rib to the main collar the tracery is double, emphasising the important mass of the arch. Above collar level, and in the three spandrels of the great cusp, the tracery is formed in a single thickness only. So confident was the designer of the success of these devices in the control of the rafter thrusts that only one new flying buttress seems to have been built on each side of the Hall to serve as abutments to every two roof principals.

The balance of the structure was further considered in that the wall plates were originally arranged to ride on the wall ends of the hammer beams and become pole plates carrying a heavy load of common rafters if or when the hammer beams should tilt under the weight of the hammer posts and their loads.

The designer seems to have foreseen movements in the roof that would follow the shrinkage and adjustment of the great timbers and to have provided for them in advance by the strong upward camber of the main collar beams and the original upward tilt of the hammer beams, now turned into a downward droop of some 10 inches into the Hall.

The repairs that have been executed in the roof from 1680 onwards have done little to improve upon the ancient structure. The appreciation of the possibilities of tensile strength in building material introduced a new interest among architects and some of the first

repairs included the provision of bolts to lace the old timbers together. These early bolts are provided with wedges or keys working in slots in the bolt ends instead of screw nuts, and the bolts themselves are composed of many small fragments indifferently welded together.

The great arch rib, which was liable to receive an undue proportion of the load as shrinkage induced distortion in the timbers, became itself distorted and its three main members were sprung apart laterally. At some other early repairs bolts were inserted to prevent further mischief and hold the three parallel arch timbers together in a united whole.

In connection with the building of the Houses of Parliament certain buttressing structures were removed from the eastern side of the Hall and Sir Charles Barry inserted other tie rods with the object of preventing the overturning of the side walls. The design of this repair was not appropriate, for the tie bars were connected to portions of the roof already showing a tendency to swing inwards and collapse into the Hall.

The outward kick actually coming on to the old walls between corbel and wall head levels was not in the least reduced, and had Barry screwed up his tie-rods with the screw couplings provided a disaster might have been precipitated. The faulty design seems to have been recognised in time, for these bars were found slack by the H.M. Office of Works survey party in 1913.

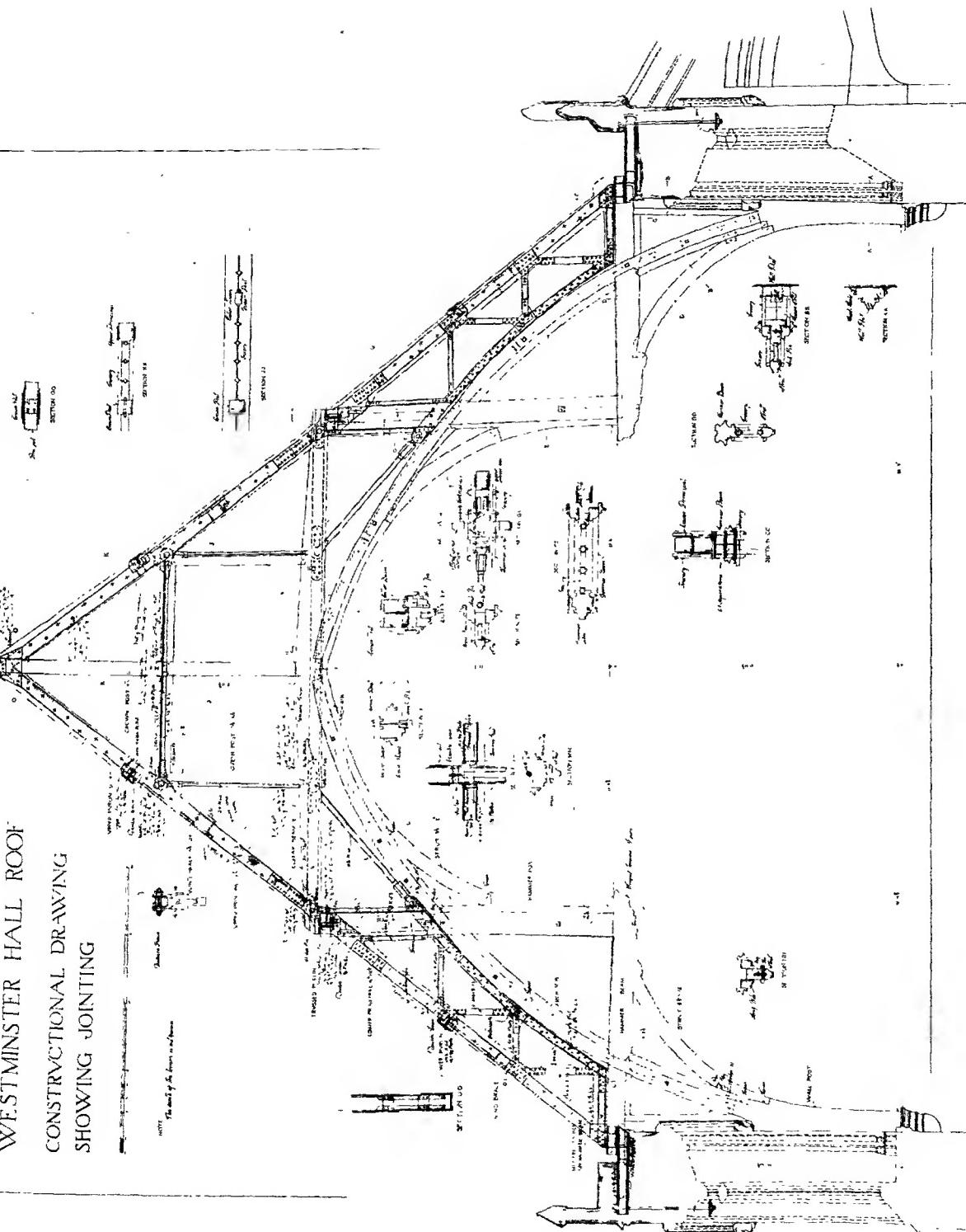
The original intention of the designer to keep the roof thrusts under control and pressing only at safe-chosen points of application was maintained to the end, and the present repairs were made necessary, not by any defect in the roof as an essay in structural design on a gigantic scale, but because the timbers, especially at their important bearing joints, had been eaten to a shell by the larvæ of the Death-Watch beetle, *xestobium tessellatum*. In some of the joints the main timbers had been eaten away until the remaining portion of the wood was no longer sufficient to support the stress, and movements occurred among the timbers between the time of the commencement of the present repairs and the time when a particular principal could be treated in detail.

The great stone corbel supporting the eastern foot of the fifth truss (counting from the N. end of the Hall) was fractured through and only remained precariously pinned in position by the oblique thrust of the foot of the arch rib.

Not only was the corbel itself broken, but several of the adjoining facings of Huddlesstone stone inserted by Sir Robert Smirke were fractured by the pressure of the corbel in adjusting itself to the new conditions.

The larvæ of *xestobium tessellatum* require darkness and stillness for their work and are believed to live for some three years in the interior of the wood before

WESTMINSTER HALL ROOF
CONSTRUCTIONAL DRAWING
SHOWING JOINTING



WESTMINSTER HALL ROOF : CONSTRUCTIONAL DRAWING SHOWING JOINTING

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

undergoing their transformation into the pupal stage. This transformation takes place in a small chamber at the end of the bore hole, excavated near to the surface of the timber, so that the adult beetle, after emerging from the cast skin of the pupa, may have little difficulty in gnawing its way through to the outer air. A single flight hole on the outer face of a timber may be the only indication of very extensive mischief within.

The discovery of the decay was the result of a youthful exploit of Sir Frank Baines, who obtained permission from one of the old sailors who used to "report" on and execute repairs in the roof, and climbed their ladder to the main collar beam. Holding on to the tracery puncheons, he walked along the beam to its point of junction with the upper principal rafter and succeeded in extracting a piece of wood eaten away in all directions like a sponge.

When, as chief of the Historic Buildings Branch of H.M. Office of Works, the building passed to his care the inference that other joints might be found in a similar condition caused him to refuse responsibility for the safety of the roof unless funds could be allotted to the detailed examination of some of its framed principals. An accurate and most minutely detailed survey was undertaken which showed the ravages of the beetle to be of the most serious character and some means had to be found to support the roof and eradicate the pest.

Every effort was made to maintain the old timbers in the positions in which they were found and to preserve the genuine original substance of the roof, and for this purpose it was necessary to introduce new trusses of steel capable of carrying the weight of the old timbers and roof covering.

Repair of Westminster Hall Roof*

BY SIR FRANK BAINES, M.V.O., C.B.E.

The problem in the roof was really resolved by appraising the importance of retaining every vestige of the original structure in its exact form and position as left after centuries of adjustment, wear and tear. It would have been possible to repair the roof on exactly the same constructive principles as the original design, but this would have meant such a vast renewal of the original timbers that the sacrifice was considered (I think rightly) too great to incur. The stresses of this great structure are so high that it would have been impossible to repair the main structural members of the trusses by patching with oak and fish-plating in any of the known methods, and the proposal to superimpose the skeleton steel frame on the roof trusses was made with the sole aim of preserving every vestige of the original timber that could be retained, limiting to an enormous extent the amount of new oak which had to be inserted.

The problem of preserving an old structure such as this is entirely different from the problem of rebuilding such a structure, and, looking at it purely as a scientific problem, it is clear that the constructive principle of the steel reinforcement to the roof trusses must differ to some extent from that of the original trusses. In the original trusses, however, the constructive principle is of a composite nature, and at least two, and perhaps three, of the separate principles at work interfere more or less with each other, while the *main* constructive principle of the roof had entirely failed owing to the hammer beams not acting as originally designed through the decay at the wall head, with the result that they were tied up to the principal rafters with modern bolts, upsetting the main principle of the roof construction far more than our consistent scheme of reinforcement

has done. I think it would be true to say that the original timber trusses have now been repaired in a manner that provides for all the main structural members to take stresses in the same manner as they did in the original design, but that to repair such extensive decay as was found in the trusses it was necessary to give additional strength in order to bind together into one integral whole the pieced up timbers and partially to relieve them of stress. The new steel reinforcement does this, and it generally follows the line of the main members of the old truss. For example, the steel rafter reinforcement follows the line of the old timber principal rafters, and here the steel is dependent upon the timber to which it is bolted for its stiffness, the timber assisting to resist buckling. Other sections of the steel reinforcement follow the lines of the old main timbers, forming the main collars, upper collars, crown posts, queen posts, hammer posts and hammer beams, the substantial addition to the steel truss being the specially forged steel tie members which approximately follow the line of the great arch rib.

I cannot too sufficiently enforce the point that in all the previous efforts to strengthen this roof this constructive principle had *not* been preserved; for example, wrought iron tie members from new cast iron shoes under the hammer beams at the wall ends and at the foot of the lower principal rafter were continued up to the crown post, entirely upsetting the fundamental principle of a hammer beam roof, which is that the reaction of the principal rafters at the wall end of the hammer beam preserves the stability of that member. I have, of course, dispensed with these modern tie members.

(2) Heavy raking timber struts were inserted in modern times from the wall post through the hammer beam to the upper end of the lower principal rafter.

* Extracts from a letter from Sir Frank Baines to Mr. F. R. Hiorns, Hon. Secretary of the Art Standing Committee.

WESTMINSTER HALL ROOF

This action entirely upset the constructive principle of the roof and broke across the lines of the design, and they have been removed.

(3) The inclined wrought iron bolts from the lower principal rafters to the underside of the hammer beams inserted to support the latter entirely upset the constructive principle of the roof and have been removed.

(4) The dragon struts to the main purlins and the bird's-mouthed struts between the upper purlins introduced temporarily to assist the sagging purlin members entirely upset the constructive principle of the roof and broke across the design of the truss and have been removed.

From this it should be clear that the departure from the original constructive principle of the roof is far less grave in the case of the work now undertaken than in the case of all the other works of repair of which we have record.

FUNCTION OF STEEL TRUSSES.

The steel reinforcing trusses have been designed to carry the entire dead weight of the old truss, common rafters, boarding and slating complete, excepting only the lower brackets of the truss and the ends of the common rafters which rest directly on the walls.

The dead weight of one bay of the original construction thus carried by the steel reinforcing truss is 49½ tons. The weight of the steel truss itself is 25 tons.

Wind pressure has been allowed for at 25 lb. per square foot, acting normal to the face of the roof.

The effective outline of the steel truss follows the line of the principal rafters up to the upper collar level, where the horizontal steel member forms the top main member of the truss. The steel rafter members are, however, continued to meet at the apex, and although these members are redundant for symmetrical and primary stresses they serve in a secondary manner in permitting the diagonals to be omitted between the upper and main collar reinforcing members.

The rafters of the steel trusses had to follow the line of the old oak principal rafters which brought the intersections at the feet of the trusses over the inner faces of the supporting walls, the true faces of the supporting walls being 8 inches behind the present ashlar facing which is in view.

Cantilever grillage girders were therefore provided to carry the feet of the trusses in this position, so as to bring the load to a fair bearing on the walls. Holding down bolts 2½ inches diameter, 5 feet 9 inches long, and anchored into the masonry by stiff anchor girders 4 feet long, are provided near the outer face of the walls to give the necessary stability to the cantilevers. The upward pull on these anchorages is about 11 tons.

The question of deflection of the truss was carefully considered in relation to the stability of the walls. A displacement diagram of the truss under dead load

showed that with freely supported bearings the truss would open about 1½ inch under these conditions.

A temperature range of 50° Fahrenheit was assumed to be the maximum variation.

The stability of the walls was carefully calculated, and the trusses were set so that the horizontal thrust due to temperature and stress in the steelwork, together with the vertical loading, would leave the walls with a maximum of stability within safe limits.

In order to do this, each truss when completed and carrying a large proportion of its final load was lifted at the feet upon hydraulic jacks with pressure gauges attached to record the amount of the lift.

As soon as this is commenced the truss begins to spread, and the horizontal movements are carefully recorded in units of $\frac{1}{4}$ inch. The relation of the tons lifted is then compared with the amount of the spread, and the spread of the truss under final loading is deduced.

This figure is then compensated for the temperature at the time of setting, for the fact that the jacks do not lift at the exact final span of the truss, and for the assistance which the walls may require to improve their stability.

The truss is then carefully set and fixed to the calculated figure, this being achieved by means of horizontal rams at the two feet coupled together (and connected with a pressure gauge), which forcibly spreads the truss to the desired position.

It may be mentioned that before the truss is lifted the main adjustable tie rods are drawn up about $\frac{1}{10}$ inch by giving a 2½-inch circumferential movement to the coupling nut, and is measured round the circumference of the rod. This has the effect of partly correcting the secondary stresses in the truss and of reducing the deformation of the truss due to final deflection.

ROYAL ACADEMY WINTER EXHIBITION THE DECORATIVE ARTS

The President and Council of the Royal Academy are making arrangements for the Decorative Art Exhibition to be held at Burlington House in January and February 1923, which is primarily intended to illustrate and promote the application of the arts, in their several forms, to the permanent decoration of buildings. The exhibition will include architectural decorations in painting, mosaic, tapestry, sculpture, carving or metal-work, designs, cartoons or models for such decorations, and designs for stained glass; and there will also be an Arts and Crafts Section, arranged in collaboration with the Arts and Crafts Exhibition Society, and limited to exhibits by members of that Society and other craftsmen, who have been asked to submit works. Works will be received at the Royal Academy on 15, 16 and 18 December. Any application for forms and labels and other information should be made during November to the Secretary, Royal Academy, Piccadilly, W.1.

Reviews

"FORM IN CIVILIZATION." *Collected Papers on Art and Labour.* By W. R. Lethaby. 8s, 1922. [London : Oxford University Press.]

If we walk from the Marble Arch to the Queen's Road we shall be told a tale. It is not the Park which shall tell it, but the houses opposite—those huge relics of mid-Victorianism, six or seven storeys high. The fact that every other one of these is for sale is the story that we shall be told. As we look at them we can picture their once pompous owners; we can see them quite clearly—superior, secure, confident and self-satisfied. If we should ring the doorbell under one of those stucco porticos we should expect to see, when the door was opened, a side-whiskered butler standing at the head of a line of flunkies. Such people appear almost ridiculous now. Dickens and Thackeray murdered a good many of them with their quills, for they were, in their day, real live human beings.

Now if somebody had dared to tell one of these pompous owners that in fifty years time his own house and most of the houses in his terrace would be sold and made into flats in which to house the middle classes and also that his way of life would vanish as completely as a rabbit vanishes from the conjurer's pocket, that someone would have been cut in the street and known as a crank.

These Bayswater houses are food for salutary reflection, for we can turn our minds back to others—Georgian, Queen Anne, Elizabethan and so on, and we shall see different examples of the same law of mutability, so that whether we believe in Evolution or not we cannot believe in any such thing as a stable state of society. This state never has and never will exist though it has been sought for in all ages and in all climes. Movement there is and must be, but such movement does not necessarily involve direct progress. The Victorians thought their way of life to be progress. Was it?

We believe now in a kind of way of life. It is not as clear cut nor so definite as the Victorian version. It is confused, but out of the confusion we hear such words as "speeding up," "efficiency," "advertisements," "mass production," "up to date methods," "getting on," "getting a move on"; in fact we would sum it up as 99 per cent. commerce and 1 per cent. beauty. We also believe, the great mass of us, that Art is something to do with easel pictures and exhibitions; that music is an affair of the concert hall; that architecture is something, in the main, ugly but made tolerable by a sprinkling of nice country houses and a good civic building or two; that sculpture is something to go in a museum or upon pedestals in public parks and that none of these things has anything to do with human Life.

As a result of these beliefs people think that motors are much more fun and that it really does not matter much what one does so long as shareholders are kept smiling and we are "business men." After all why should we think otherwise? If people want to see fine things let them go to the museums and let the cultured read their books and so increase both their culture and their stock of information and let them not produce any fine things, but feast their aesthetic souls upon their collection of antiquities.

Architects do not believe in this sort of thing—much, but the public does—very much. They have made a way of life and the wish being father to the thought, they like to call it "progress." Is it?

And if in fifty years time our notions shall have changed and we come to believe that Man was endowed with a Creative Spirit, not for a joke, but that he might develop it and so develop his mind, by creating fine towns, fine buildings, fine decorative painting, fine sculpture, fine music, fine drama, singing and dancing, fine crafts—even fine cooking and games—in fact, if we come to believe, not in a method of existence but in a philosophy of Life, would such a change be more impossible than that which has been wrought upon the once pompous owners of Bayswater?

Should such a thing come to pass then perhaps someone will happen upon *Form in Civilization* and with mingled respect for its age and contempt for its import—as one would finger the pages of an old romance—curiously scan its contents. But curiosity would turn into interest, and interest into admiration and the someone would give it an honoured place on his bookshelf, saying: "This man was a prophet, who in his own generation must have gone about crying in the Wilderness and who was probably not without honour save in his own country."

Now, if our nation doesn't come to believe in the Spirit of Man but continues on its present way—a way admirably illustrated by G. F. Watts in his decoration called "Life's Illusions"—and is served according to its desires and so becomes a collection of iron-smelters, tinkers and coal-miners, then will Professor Lethaby still be right and the nation wrong. But we, like Professor Lethaby, have faith in this great human and Creative Spirit. We believe that prophets do not appear for nothing. They come to reflect the ideal and to point out the way.

W. W. SCOTT-MONCRIEFF [F.]

LUTYENS' HOUSES AND GARDENS. By Sir Lawrence Weaver. [Published at the offices of County Life, Ltd.]

This book is an appreciation of the work of an artist. Sir Lawrence Weaver's object is to record and illustrate the work of the best architect of his day, so that many who cannot see the houses and gardens may have an

REVIEWS

opportunity of seeing illustrations of them conveniently collected together. His descriptions and explanations are admirable, and his remarks show an understanding and appreciation of the art of architecture none too common. He quotes Pater on style, and says (p. 23): "The buildings now illustrated clearly present one outstanding quality—they are instinct with *style*, not in the usual meaning of the word that nails work to an historical period, but as Pater used it—for there is *style* there; one temper has shaped the whole; and everything that has *style*, that has been done as no other man or age could have done it . . . has its true value and interest." For all his faithfulness to tradition, Sir Edwin impresses on his work a personal quality that is unmistakable and that eludes the copyist. "A certain strangeness," says the same critic, "something of the blossoming of the aloe, is indeed an element in all true works of art; that they shall excite or surprise us is indispensable. But that they shall give pleasure and exert a charm over us is indispensable too; and this strangeness must be sweet also—a lovely strangeness." It is precisely because Sir Edwin uses his power of artistic surprise with reticence that it never becomes antic. As soon as he has enlivened his composition with a gracious touch of strangeness, he retires into gravity which retains our interest because it is unconscious, and never collapses, as grave designing is apt to do, into dulness.

Again, on page 26, he says: "The function of architecture is not to apply ornament to building, but to create in building an artistic unity so pervading that it shall be impossible to detach any one quality or detail without an inevitable sense of loss"—an excellent definition.

In speaking of Homewood, page 57, he remarks: "People sometimes talk as though architecture had come to an end, as though there is nothing to be done except to copy the work of our forefathers. This garden front of Homewood is a small, albeit delightful, thing in itself, but it is symptomatic of much. It proves, what people are slow to believe, that in the new arrangement of traditional forms, perhaps themselves of widely differing provenance, there is room for infinite originality. We do not want new forms, but new light on the old, and a new perception of their possibilities." I should rather be inclined to say we cannot have new forms rather than we do not want them. Men have been striving to find new forms for long ages and have not found them, but study of the work of the past proves Sir Lawrence's statement.

It may be thought that this book is too laudatory: but can fine art be praised too highly? Sir Lawrence Weaver is an able and helpful critic, and I think his book would have gained in usefulness if he had pointed out some of the more obvious defects in certain of the plans. True, he does say of one that in some respects it

is not all that could be desired. The plans have great qualities, and deserve all the praise he gives them, but there is no need to overlook inconveniences which one would have expected so ingenious a mind as Sir Edwin Lutyens' to have amended.

As one looks through the 144 illustrations beginning with some of his earlier work one is impressed by the high standard which Sir Edwin maintains in a large and varied practice. It is interesting to see his powers develop; they grew rapidly and continue to grow, for the latest work is among the best. But for sheer quality of design both in plan and elevation two of the simplest houses illustrated in this book are perhaps the most notable: one is No. 36 South Square, Westminster (plates 6 and 7), the other Chussex, Walton on the Hill (plates 107-109). Both are traditional English houses, but handled with a freshness and originality and sensitiveness to proportion and spacing which is quite delightful, and also very rare.

CHARLES SPOONER [F.]

JAPANESE TEMPLES AND THEIR TREASURES. *Compiled by the Department of the Interior, Imperial Japanese Government. 3 Vols. [Published Tokyo, MCMX.]*

Mr. G. Kiralfy has recently presented to the Institute Library a work on the Temples of Japan that will give pleasure to all who have felt the appeal of that country's art. The three large volumes, in which the subject is illustrated, were produced in 1910 in view of the then forthcoming Anglo-Japanese Exhibition in London.

The first volume, devoted to architecture, contains some 200 plates which are mostly from photographs. A considerable number, however, are from measured drawings delicately made in a manner unmistakably Japanese, and in a few cases coloured so admirably that one feels that the remainder record less than half the truth. It is to be regretted that none of these drawings is provided with a scale, nor are there any sectional indications in the cases where sections are given. The plates are preceded by an outline of the history of building in Japan, with some useful diagrams. The nomenclature is only less elusive than its Chinese counterpart, but one looks in vain for the piquancy of Japanese English. In this article an English hand has been at work, and only in the title of the writer of the preface is the authentic flavour revealed. His style is "Director of the Bureau of Religion."

The remaining volumes are devoted to sculpture and painting, and contain many hundreds of illustrations of the choicest works of twelve centuries. But excellent examples of these are to be found in our museums, and it is therefore to the illustrations of buildings that the architect returns with most interest. Little remains of the early structures built by the Chinese and Corean

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

craftsmen who followed the first Buddhist missionaries in A.D. 552. All, or nearly all, of the temples, shrines and monasteries were constructed of wood, and it is remarkable that not a few have survived earthquakes and war, fire and decay, for over a thousand years.

It is interesting to trace, in the examples given in these volumes, the various waves of Chinese influence and their subsequent assimilation by the Japanese. The text classifies these as 1st and 2nd Chinese influences—the former starting from the date mentioned and finishing with the Tang Dynasty (A.D. 906); the latter beginning after the troubled period known as the five dynasties, and comprising the Sung, Yuan and Ming (A.D. 1644). Between Chinese and Japanese structure the resemblance is always strong. In both the cell with its characteristic pitched roof is the unit, and a large building is virtually only a collection of such cells. But if the planning remains rudimentary, the unit becomes extremely intricate and fantastic in its construction and decoration, and it is here that the differences between the two national styles become apparent. In Japan the curves of the roof hips take gentler sweeps, and frequently the eaves curve up again in the centre of a straight façade. The brackets supporting the stringers and the various roof members assume an amazing complexity, while the very bright colour found in Chinese buildings tends to become more subdued and less, the result of a strict religious convention. Those interested in decoration will find the colour plates full of suggestion not only as regards the actual harmonies, but also in respect of the values of different colours on the structural aspect.

These volumes are of little use to those who are in search merely of fresh detail to copy, but for the student and for those who love beauty for its own sake, they are full of good things; and all will be grateful to the Government of Japan for preserving the records of its past.

J. MURRAY EASTON [A.]

ARCHITECTURAL OFFICE ADMINISTRATION. *By Francis Lorne [A.]*. 8o. [Technical Journals, Ltd. Lond.]

After many days, and during an enforced period of rest and change, I have devoted some time to the consideration of the book by Mr. Francis Lorne under the above title.

I have wondered at times what the "review" of a book really is intended for. If it be for the advantage of the writer it will necessarily be without adverse criticism. If it be to call the attention of students or readers to the work generally it may be a fair comment on the book. Presuming it to be the latter, the following are my views on Mr. Lorne's book.

The perusal of it will be of advantage to every architect, whether he has a large practice of his own or is

only starting on his first job—the former will possibly gain some wrinkles which will improve the system in use in his office, and the latter will have put before him an example of how things should be done, although he is hardly likely to carry out all that is recommended in the book under consideration.

I think it is, speaking generally, true that the business side of architects' offices is not as well dealt with as it might be; this arises from two causes—first, the real architect is in general not a good business man; and, secondly, there is no place in the schemes of education for the teaching of the proper and efficient conduct of a practice.

I agree with the writer so far, but I cannot understand quite who is to take up his system. Most architects have to make a beginning in a small way, and to these the system advocated would be out of the question; the office would consist of the using of rubber stamps and forms, and there would be little time left for what is called "architecture" by some and "designing" by others. But the advice given by Mr. Lorne on some points, I think, should be followed out in every office, large or small; for instance, the north point should be put on every plan, the date should be put on every drawing sent out of the office, and a record made of its having been sent out and to whom—as a rule both these items are more usual in the breach than the observance.

I do not agree with the writer as to his proposed form No. 2, as I do not consider it would be a prudent thing to prepare the "drawings for public authorities" before the working drawings; rather do I think the drawings for the authorities should be copies of the working drawings as far as they are required; nor do I agree that in a case where the time allocated to make the drawings is ten months the full size details should be left until the last two months. In the first place, it is very unusual that such a long period should elapse between the receipt of instruction and the commencement of the work, except, of course, in the case of schemes of considerable magnitude, so that it would be desirable that once the scheme was definitely fixed the working drawings and the details should as much as possible be proceeded with together; it would facilitate the writing of the specification, enable the difficult questions to be thrashed out at an early stage, and leave far less to the imagination of the quantity surveyor, who, I observe, does not get a place in the book at all, which I should say points to its American origin.

The writer advocates blue prints, to which he says exception is sometimes taken by architects and contractors; there is much to be said on both sides. If the drawing is well figured up and some recognised system of denoting materials is used, such as given in the book under review, blue prints are quite as useful on the works as any other form of drawing. Due to the

REVIEWS

shrinkage in production it is not possible to scale them correctly and they do not bear such rough usage as a linen print, but they are cheap and can be given out in large numbers when required at a very moderate cost.

As Mr. Lorne advocates, a record of all the drawings sent out of the office is most desirable—essential, indeed, to the proper conduct of an office; whether it be on the Card Index System or some other is, of course, a matter of individual opinion. Personally, I find one book in which *every* drawing made and sent out is entered, with a number thereto, a simple and easily worked method; the drawings of the various works can be then abstracted from it when required.

With regard to the keeping of drawings, it must be left to individual taste, the great difficulty being when the various works are completed and the drawings are stored. I am of the opinion it would be a good plan if they were sent to the employer, who would then have a record of how his building was constructed and thus save endless search and measuring in the future. The record of clerks' time is always a difficulty in an office; the author advocates "time sheets." This is a good method, but it is questionable whether a cheap diary for each assistant is not better, in which should be entered all that the assistant does; the number of hours worked each day on each job, any outdoor work, visits to works, interviewing and expenses—all this could be abstracted into the various books kept in the office for accounting purposes.

One form, "the Clerk of Works report" (Form No. 23), I take exception to. In the first place, I do not understand what it means. For instance, under the item "Ironmongery" what could the Clerk of Works put under each day? A report, to be of use to the principal, should give the state of progress of the various portions of the work: if necessary, the number of men employed in each trade, a record of callers at the works and their business, the date a particular section of the work was commenced or completed, items required, notes of concealed work and measurements for future information, delivery of goods and the like, all of which may be useful at a later date.

The writer's notes on correspondence and records are quite good, although perhaps a little overdone and more suited to large offices. How many offices there are where no systematic record of letters is kept at all, where the principal replies to letters on important matters in his own handwriting, no copies being kept! If nothing goes wrong and the building is a success all is well, but if the reverse should happen then there is frequently much confusion. Mr. Lorne's specimen accounts are good and worthy of the most careful perusal. When I have a large office I shall adopt some of them; until that time I must be content with a more simple method.

MAX CLARKE [F.]

The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT ACQUISITIONS.

[These Notes are published without prejudice to a further and more detailed criticism.]

BUDDHISTISCHE TEMPELANLAGEN IN SIAM. By Karl Döhring. 3 vols. Sm. fo. Bangkok, Siam, 1920. [Asia Publishing House, Bangkok, Siam.]

A record of the Buddhist temples of Siam. The first volume contains the text, with measured drawings, plans, and drawings by Siamese designers. The second and third volumes consist of nearly 200 photographs of the temples. The whole forms probably the most complete record yet published of this amazingly lavish and fantastic style of architecture.

H. M. F.

LOCAL GOVERNMENT, 1921. Comprising Statutes, Orders, Forms, Cases and Decisions of the Ministry of Health. Edited by Alexander Macmorran, M.A. £2 2s. [London, Butterworth and Co., and Shaw and Sons, Ltd.]

A volume which, in part, is of interest to the architect, epitomising as it does legislative action up to the end of last year in a number of directions that appeal to him. Amongst these it notes amendments in the Housing, Town Planning Act, 1919, and in the Act of 1896 dealing with ancient buildings and monuments. The circular of the Ministry of Health (March, 1921), dealing with the preparation of town planning schemes, is also set forth at length.

C. H. T.

DAS STÄDTISCHE BÜRGERHAUS NIEDERSACHSENS. By Richard Scheibner. 6s. 40, Dresden, 1910. [Verlegt bei Gerhard Kühtmann, Dresden.]

It is delightful, in this age of photography, to find a book illustrated from pen drawings. These, though over-laboured, are very interesting, and the subjects—old town houses almost all of timber—are charming. The moral of the book is that everyone wishing to study old half-timbered work should go to Einbeck, where there is a wealth of examples far beyond anything to be found in Normandy or any part of France.

C. E. S.

LA TARSIA E LA SCULTURA IN LEGNO NELLE SEDIE CORALI E NEGLI ARMADI DI ALCUNE CHIESE DI MILANO E DELLA LOMBARDIA. Illustrazione di Vinc. Forcella. Prefazione di Luca Beltrami. 2nd ed. 40, Milan, 1896. 14s. [Ultico Hoepli, Milano.]

Those who know the beautiful drawings and etchings which Luca Beltrami has done will be disappointed to find this book illustrated by photographs, but in view of the nature of the subject this was perhaps inevitable. The beautiful Tarsia work loses much in reproduction, which is a pity, as this charming art is practically unknown in this country.

C. E. S.

DAS THEATER VON PRIENE. By Armin von Gerkan. Fo. Munich, Berlin-Leipzig, 1921. 21s. [Schmit, Berlin.]

Students of Hellenistic building will welcome this monograph on the Priene Theatre. In the information imparted the book is exhaustive, and as a record of its subject is as complete as could be wished. The detailed plan showing the stone jointing is an object lesson in careful measurement and delineation. The text is in German.

W. H. A.

DIE KUNST DER ISLAMISCHEN VÖLKER. By Dr. Ernst Diez. 40, Berlin, 1915. £1 5s. [Akademische Verlagsgesellschaft Athenaion M.B.H. Berlin-Neubabelsberg.]

One of a new and admirably illustrated series of monographs on historical periods in architecture, containing extensive bibliographies and including, in a convenient form, the results of the most recent research.

M. S. B.

Correspondence

THE LIGHTING OF PICTURE GALLERIES AND MUSEUMS.

To the Editor, JOURNAL R.I.B.A.—

SIR,—It is extremely gratifying to find that the scientists, Dr. E. H. Rayner, J. W. T. Walsh and H. Buckley, of the National Physical Laboratory, after making very careful scientific tests of my method of lighting, which I named the Top-Side-Lighting Method, published in the JOURNAL of 23 November, 1912, should have come to the conclusion that it fulfils all the conditions for good lighting of galleries. They have proved with scientific accuracy that which I had proved with the less scientific use of the photometer and by actual photographs of existing conditions.

It is also very pleasing to note that their opinions follow the laws which, on page 49, I stated must be followed if we are to solve satisfactorily the problem of lighting picture galleries and museums.

The perfectly original additions they have made at the instance of Sir Frank Baines for keeping out the sun's rays (i.e., for doing without blinds) and for obtaining equal illumination on both sides of the gallery are full of interest and worthy of the close consideration of architects. Whether or not it would be advisable to adopt their ingenious method is an interesting subject for discussion. At present, my experience and observations have led me to believe that the sun's rays can be efficiently scattered by the use of kaleidoscopic glass, and an even temperature maintained in the gallery by the use of a sheet of clear glass placed about four inches from the skylight, to form an air-tight, and, of course, dust-proof, space in which, if necessary, spring roller blinds could work.

In respect to the equal illumination of the opposite walls of the gallery, it is clearly shown how this can be achieved, but I would point out that the aim is not to illuminate the *walls*, but to illuminate the *pictures* upon them, and equal illumination could not be maintained unless the whole of the pictures and parts of the pictures were of exactly the same tone. This is, of course, impossible.

Fortunately, it is not necessary, as I shall be able to show in the Paper I am preparing, which, as Members are aware, would have been placed before them during last session had not circumstances arisen which prevented it. It is necessary that the publication should not be delayed, for since writing my article in 1912 the Top-Side-Lighting Method has been adopted in the recently erected Sergeant Art Gallery, Wanganui, New Zealand. The illustrations of this gallery, together with a large collection of photographs lately taken in all the principal European galleries, I am anxious to place before my fellow architects and our scientific friends.

If they had had the opportunity of seeing these photographs before their Paper was written they would not have jumped to the conclusion that "*It is, of course, impossible to prevent reflections from pictures on the opposite wall.*" It is most important that this statement should be at once corrected, for it is true only in the case of large glazed pictures in narrow and therefore quite unsuitable rooms.

On page 47 of my Paper, diagram figure 4, is seen the result of inclining pictures in side-lighted rooms in order to get rid of the reflections of the *primary* sources of light, namely, the windows. The diagram, as the photos will show, applies equally to *secondary* sources of light, namely, the brightly lighted pictures and their gilt frames.

It is to be regretted that this was not made clear in my Paper, as it is a most simple expedient which may easily be put into practice by Gallery Directors and by all private owners, who at present cannot properly see the pictures on their walls. Of course, as above stated, if the picture is very large in relation to the width of the gallery, inclining the picture will not suffice, and in this case, as in the large Central Hall of our National Gallery, where the pictures on the opposite walls are of equal tone, the proposed method of equalising the light would be most valuable; but the lighting of a very large percentage, perhaps 90 per cent. of pictures, could at once be improved, and in some cases perfected, in this way.

There are many other points in their Paper I should like to discuss, but as they apply to the erection of new galleries they can well wait until we have, as I hope we shall have, a full discussion on the question. The scientific interest which is at last being taken in this important subject may well lead us to hope that we shall soon see constructed on this side of the world an example closely following the lines now laid down.

The Fine Art Gallery to be erected at the Empire Exhibition at Wembley should surely provide us with an object-lesson to be followed for all time.—Yours, etc.

S. HURST SEAGER [F].

23, Throgmorton Street, E.C.2.

25 October 1922.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—The paper on Illumination published in your issue of the 21st inst. is extremely interesting, and it is much to be regretted that so few members of the Institute attended when it was read, so as to hear the discussion.

A most important statement appears at the bottom of the right-hand column, on page 625, showing that the so-called "half watt" lamps really take from 1 to $1\frac{1}{4}$ watts per candle.

This point should be borne in mind by all who use these lamps for illumination.—Yours faithfully,

R. LANGTON COLE [F].

CORRESPONDENCE

Palmyra Square Chambers, Warrington.
24 October 1922.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—With reference to your article on the Lighting of Public Buildings published in the JOURNAL of 21 October, it may be of interest to some of your readers to know that in the Lady Lever Art Gallery which Lord Leverhulme commenced building at Port Sunlight in 1913, and which is nearing completion, roofs of the type shown in your article have been constructed in four of the larger galleries, the only material difference being that the two solid portions of the roof were carried up to an apex and glazed, so eliminating the number of gutters required, but, on the other hand, slightly diminishing the light owing to it having to pass through two thicknesses of glazing.—Yours faithfully,

WILLIAM AND SEGAR OWEN [F.]

REGISTER OF CRAFTSMEN.

11, Adam Street, Adelphi, London, W.C.
8 November 1922.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—The proposal made in the JOURNAL of 23 September which finds support in the present number to establish a "Register of Craftsmen" at the Institute is interesting but might prove extremely difficult to work out.

For an architect who does not mind taking some trouble to unearth possible treasures in the way of workers in wood and metal, ivory, glass, and so forth, there are at least two other methods open.

(1) There exists in London and the country a limited number of technical schools which turn out every year a few clever pupils, and it is often practicable through the principal of one of these schools to get hold of some former pupil who has established a little business of his own and is doing really good work in the line in which one requires help.

(2) In the lesser picture galleries there is occasionally to be found a piece of wood carving or metal work which has been produced by some artist, with none too many commissions, who is only too glad to take on a job.

A small picture gallery near this office, which had some excellent examples of Maestrovitch's wood carving a short time back, has more than once been the means of putting me in touch with excellent artists in special lines.

"The times are out of joint," and nowadays if one wants information one has to get busy and find it for oneself.—I am, Sir, yours faithfully,

ARTHUR BARTLETT [F.]

THE GENERAL ELECTION AND REGISTRATION.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—The imminence of the General Election affords an unique opportunity to forward Registration for the Architectural Profession.

Whilst our members are divided upon certain aspects of Unification and Registration, we are united at least to the extent that it may safely be predicted no dissenting voice would be raised in the Institute to the principle of obtaining Registration at the earliest possible moment.

A draft Registration Bill now lies before the Council which will be submitted to the General Body within the next few weeks, and this will be lodged in time to permit of its being dealt with, *Deo volente*, in the next Parliamentary year, for it is reasonable to assume that since we are all agreed on principle, the draft Bill will, after modification, secure the necessary majority of the Institute.

The object of this letter is to point out to members of the Institute throughout the kingdom the astonishingly apposite opportunity furnished by the General Election to enable all those interested in Registration to insist to their candidates that election depends *inter alia* upon a promise to support this equitable measure. It may confidently be assumed that every candidate, if approached at this juncture, could be committed to foster the Bill and support it when it comes before the House.—Yours truly, PERCIVAL M. FRASER [F.]

ELMES STUDENTSHIP.

606, Royal Liver Building, Liverpool.
24 October 1922.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—At the time of Elmes' death a fund was raised for his widow and child. Part was invested, the income to go to the beneficiaries, and at the death of the survivor to found a studentship for Architecture or the Fine Arts. An income of about £35 became available five years ago. The Board of Education drew up a scheme under which various bodies, including the Council of the R.I.B.A., were empowered to elect Trustees to administer the Trust. The Trustees appointed as examiner the Professor of Architecture at the Liverpool University. Unfortunately, by the scheme the studentship was limited to those who had been educated at certain specified Liverpool schools, which were in existence in Elmes' lifetime, and who had matriculated. These restrictions have proved far too stringent; only one candidate has appeared in the last five years. The Trustees have now decided to apply to the Board of Education for leave to widen the Regulations so that any student of architecture under 23 years of age, who has matriculated, will be eligible.

HASTWELL GRAYSON [F.]

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

MR. WATERHOUSE'S PRESIDENTIAL ADDRESS.

There was a large attendance of members and their friends, including many ladies, at the inaugural meeting of the session to hear Mr. Waterhouse's opening address. There were also present the following distinguished guests whom the Council had previously entertained at dinner: The Right Hon. the Earl of Crawford and Balcarres, K.T., P.C.; Sir Amherst Selby-Bigge, Bart., K.C.B., and Lady Selby-Bigge; Sir Francis Newbolt, K.C., and Lady Newbolt; Sir Frederic G. Kenyon, K.C.B., and Lady Kenyon; Sir Lionel Earle, K.C.B.; Sir Hercules Read; The Rev. E. C. Pearce, D.D., Vice-Chancellor University of Cambridge; Dr. H. J. Waring, F.R.C.S., Vice-Chancellor London University; Mr. Cecil Lubbock; Mr. E. J. Partridge, President Society of Architects; Mr. John W. Simpson (Past President R.I.B.A.).

At the conclusion of his address the President presented to the Institute the portrait of Mr. John W. Simpson, Past President, which had been painted by Sir Arthur Cope, R.A., and also proposed a vote of thanks to the artist for his admirable work, which he considered would take an equal place amongst the finest portraits in the Institute collection of Presidential portraits. Mr. Simpson seconded the vote of thanks.

MR. E. H. NEW'S PRINTS.

Mr. E. H. New, the newly elected Honorary Associate of the Institute, has presented to the Institute collection of Drawings and Engravings twenty-one of his well-known prints, including fifteen of the Oxford Colleges, the Towers of Oxford from the Bell Tower of Magdalen College, the High Street from Queen's College to St. Mary's Church, and the Central Buildings of the University. The two remaining prints are of the City and Port of London from the Borough of Southwark, and a view of Florence. The President referred to the gift at the Inaugural Meeting, when the drawings were on view. This collection of Mr. New's interesting and meticulous work will be referred to in a subsequent issue of the JOURNAL.

BICENTENARY OF THE DEATH OF SIR CHRISTOPHER WREN, 25 FEBRUARY, 1923.

The first meeting of the Grand Committee will be held on Wednesday, 22 November, at 4.30 p.m., at the Royal Institute of British Architects, 9, Conduit Street, W.1. The business of the meeting will be to consider arrangements for the Commemoration Programme. The Grand Committee includes Sir Aston Webb, P.R.A., Mr. Paul Waterhouse, P.R.I.B.A., Mr. Andrew T. Taylor, Sir Lionel Earle, Sir Banister Fletcher, Sir Hercules Read, Professor A. R. Hinks, Mr. Mervyn Macartney, Dr. H. H. Turner, Major-General W. D. Bird, and representatives of the Universities of Oxford,

Cambridge and London, of the City of London, and of all the appropriate Learned Societies, Guilds and Schools.

EXHIBITION OF CONTEMPORARY BRITISH ARCHITECTURE.

The Exhibition of Contemporary British Architecture, which was postponed from 1 November, will be held from Friday, 1 December to 22 December 1922.

R.I.B.A. WAR MEMORIAL.

The Rt. Hon. the Earl of Crawford and Balcarres, who is an Honorary Fellow of the Royal Institute of British Architects, has consented to unveil a War Memorial Tablet in the Galleries of the Royal Institute. The ceremony will take place on Monday, 20 November, at 3 p.m. Members and their friends are cordially invited to be present.

In the course of the war more than 1,300 Members and Students of the R.I.B.A. served in various branches of His Majesty's Forces, and more than 230 of the number laid down their lives. The names of the dead will be inscribed upon the Tablet, which was designed by Mr. Trenwith Wills, A.R.I.B.A., whose design was successful in a competition restricted to Members of the Institute who had served in the war.

REGISTRATION OF ARCHITECTS.

The Council of the Institute have decided to take immediate steps to lodge the requisite Parliamentary notice in November of the intention of the R.I.B.A. to bring forward an Architects' Registration Bill.

It has been further decided to convene a General Meeting of the Royal Institute at an early date to obtain the approval of the General Body to the draft Registration Bill prepared by the Registration Committee.

THE DANGER TO ST. PAUL'S.

R.I.B.A. FUND.

The President and Council desire to call the attention of members to the R.I.B.A. Fund which was opened in July. The Allied Societies are co-operating energetically in this matter, and their subscription lists will be received in London at an early date. It is hoped that London members, to whom the Council's appeal was primarily directed, will lose no time in forwarding subscriptions, however modest in amount, to the Secretary.

REINSTATEMENT OF FELLOW AND LICENTIATES.

The following have been reinstated under By-law 23:—

G. O. Scorer, *Fellow*.
Reginald W. Jackson, *Licentiate*.
John Brown, *Licentiate*.

MANCHESTER SOCIETY OF ARCHITECTS

Allied Societies

MANCHESTER SOCIETY OF ARCHITECTS.

PRESIDENTIAL ADDRESS BY MR. FRANCIS JONES [F.]

At the opening meeting of the Society on 11 October, Mr. Francis Jones said in the course of his address :—

The functions of an Architects' Society are divided into three parts : educational, artistic and material. To each of which must be added another element—the social element, if the blood of the Society is to function properly. We have only just emerged from the long period of stagnation caused by the war—a period during which not a single student joined the Society ; without new blood the body must inevitably decline ; without students a Society of Architects becomes anaemic, and before long will fade away. The ideal composition should consist of graduated parts of young, middle-aged, and elderly—young, in which I include the students and young associates ; middle-aged, in which I am reluctantly compelled to include myself, and elderly, in which I shall not venture to include anyone ; but it is on their ripe judgment and experience the well-being of the Society largely depends, and from them the young should receive most necessary encouragement.

With regard to education. During the past year the School of Architecture has been taken over entirely by the University and the whole of the work will, in future, be carried on in one separate building under one general direction instead of in several buildings, and subject to different authorities who did not always see eye to eye ; a complete School of Architecture—another ideal achieved. At the School of Art the Corporation have also organised a complete syllabus for those who are not taking the University courses. One must be grateful for all efforts made for architectural education, and I feel we are very much in debt to the Corporation, who, until the University instituted a Chair of Architecture, were entirely responsible for architectural education in Manchester. The late Mr. Richard Glazier was untiring in his efforts to assist architectural students in every possible way, and I hope the Corporation will understand our motives in urging that the University should assume complete control of their architectural students. It is because we feel that in addition to the artistic and technical subjects the students' general education should be carried to a higher standard, and that the proper architectural spirit can best be fostered in a self-contained school where the students all have similar interests and where they will learn as much from each other as from any other source. I hope the University and the Corporation will still co-operate sufficiently to prevent wasteful overlapping. The test of a School of Architecture is not in the number of its pupils, although a certain minimum number is an economic necessity (I do not know whether the number of architectural students in Manchester is sufficient to justify two schools) ; but we only want such students as are anxious to get into the profession for its own sake. It would be disastrous to have the pupils for two schools rather than schools for the pupils. Mass production has its drawbacks—we do not want to flood the market. Registration, if and when we get it, would make this difficult question of numbers much simpler.

Students would indeed count themselves fortunate if

they realised how hard and stony was the path of the architectural student of 20 years ago. I think, also, the City will count itself fortunate, perhaps, 20 years hence when it realises the higher standard of the buildings it will contain. That is, after all, our greatest ideal—to raise the general architectural standard and make our cities and our towns the pride and the joy of those that dwell in them. This will not, of course, be accomplished by mere attendance at the School of Architecture—hard work and earnest endeavour are demanded from the architect all his days, but it does give everyone a chance, which he did not often get formerly. Too much used to depend on the office in which the student was articled. The Society will keep in touch with the University and see that the architectural studies are pursued on lines most advantageous to architecture. It is certainly through the Society that the School of Architecture has been founded and it is up to the Society to see that the work is properly done. I am sure the University will give the Society every opportunity possible to see the working of the School and welcome any criticisms that may be given. I must also mention the material side—the School needs funds. The Institute of Builders have shown a wonderful spirit in this matter and have subscribed £4,500 to the scheme. The architects have collected £600, and in addition about £5,000 have been left to the School by the wills of former members of the Society. We must do more, and I appeal to you—all of you—to subscribe liberally to the School of Architecture fund and ask you to remember that you are not merely helping architectural education but helping also to raise the architectural standard of the City in the near future. It is the Society's duty to watch the growth and development of the City and to shout, and shout loud, when such development is not being done on sound architectural lines. The voice of the Society should be looked for with respect by Corporations and all concerned with building, town planning or similar subjects.

At the present time there is a great town-planning conference in Manchester. I hope you will all visit the Town Hall during the week and see what has been done and what it is hoped will be done in the future development of our towns. Town planning is no new art—the Egyptians, Greeks, Romans, and in much later days the French and the Austrians all had the town-planning sense. Why were the inhabitants of Manchester and other manufacturing towns so totally unconscious of it 80 or 90 years ago ? It was because they preferred riches and personal aggrandisement to the common good. Let not this charge be laid against this generation. Picture a Manchester to-day which had had a town-planning spirit 100 years ago, or even 50 years ago. Look at our modern suburbs, left entirely to the mercies of the speculative builder—how different they might have been if they had been laid out in a comprehensive manner even 20 years ago.

It is our duty to enlighten all and sundry, and we have joined with the Institute of Builders and the Royal Institute in arranging public lectures at the University to that end—the more interest the public take in architecture the better the architecture will be. If the public demand a higher standard they will assuredly get it. Another notable event during the last session was the American Exhibition arranged by the Society and held in the City Art Galleries. The Americans had shown the value of long and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

thorough study in their interpretation of the classic spirit as adapted to modern public buildings. It is in their public buildings that they excel—both in grandeur of scale and perfection of detail. They also show the value of co-operation, for nearly all the big work is done by groups of architects working together. In town planning, too, they have shown both imagination and courage. They have, of course, the example of England before them, and in laying out their towns they have some knowledge of what the development in fifty years' time of modern expansion is likely to be. We have that experience now and I think are likely to take advantage of it in the future.

We are part of the Royal Institute and owe to it allegiance. As a colony of the Empire is to England so are we to the Royal Institute. The Institute does a great deal for us—the hard, conscientious work done by the Council and Committees of the Institute can only be realised by those who have had the opportunity of seeing them working. The Institute looks after the well-being of all branches of the profession; educational, artistic and material interests all come under the Institute's care. We are, therefore, vitally interested in the Institute, at which something like a revolution occurred at the last General Election. Do we all quite understand why practically the whole of the members of the late Council—men who were leaders of the profession and who had served the Council faithfully for years—failed to secure election?

I feel I must dwell at some little length on the subject of registration, for it is of vital importance to us all and we must all think the matter out for ourselves—it is a much greater question than the personnel of the Council for a particular year. It is the future of British architecture and of the profession. Let us review the position. Registration is, I think, desired by most members of the profession—certainly it was the policy of the old Council and most certainly it is the declared objective of the new one. So far we are all agreed. Again, who should the controlling body be? Doubtless the R.I.B.A., and up to this point even we would, I think, be in agreement? The ultimate goal of all seems to be the same: the ultimate is a higher standard of modern architecture in England. If we get registration, unification must follow, but it is almost, if not quite, impossible to get registration without unification in some form or other first. Registration only is no use to us—you can register anything, such as slaughterhouses, patent medicines, letters or plumbers—we want education and registration. If we have that someone must decide how much education before registration, which really means there must be a general control. Who is to be that general control? Naturally one would say the R.I.B.A. But will a man who is a member of a body not allied to the R.I.B.A. agree to that? Or would a man who has practised as an architect for many years but is attached to no Society agree to it? Probably not. We must therefore get this other body and this unattached man to join in with us in some way or other. And this is the difficulty—amongst the practising architects not attached to the Institute are many capable and efficient architects. We should all welcome these to the Institute; but there are also many who, although they have practised for many years, are neither capable nor efficient, and could not reach the standard worthy of registration. These men have made their living for years by designing and erecting

buildings, and no Government would pass a Bill which would debar them from carrying on their business. But the supply of new men of this type would cease the day of the passing of the Registration Bill; their ranks are filled from time to time by clerks of the works, clerks from builders' offices, quantity surveyors, clerks from District Council offices, and so on—all without architectural training, and this supply will continue to pour in men to practise in competition with those who have gone through a long course of training in an architectural school and architects' offices. The sooner this supply is stopped at the source the better for the contents of the architectural reservoir from which our supply of buildings is obtained. The cost of clearing the reservoir is the admission of the present doubtful supply until such time as the whole supply will have to pass through the filter beds, or, in other words, examinations. This must happen in any profession which has been an open one before it became a closed one. Before medical examinations were compulsory for that profession all sorts of people obtained a living, or part of their living, through giving medical advice, and when registration of doctors became compulsory all and sundry, quacks, herbalists, and so on, assumed the dignity of medical men. Similarly with the law. If you have to have a bad tooth out the sooner you go and get it over the better. The sooner registration is accomplished the better for everybody—the better for the young architect materially, the better for the country architecturally.

This year is the bi-centenary of the death of Sir Christopher Wren, and the Council has decided to hold celebrations in Manchester on 28 February. As you are aware, the greatest of his works, St. Paul's Cathedral, is badly in need of funds for essential restoration, and all are invited to subscribe to the fund which the Society is organising.

THE BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION.

The Association (of which Mr. Edward Warren is the first President) has issued its *Year Book* for 1922, which reports on a year of active and useful work carried out by the Society and its three executive branches, the Reading Society of Architects, the Oxford Society of Architects, and the Slough Society of Architects. The membership of the Association now numbers 125, in addition to honorary members. Amongst the many important questions discussed by the Council were those of Unification and Registration, Housing and Town Planning, Art Commissions in leading towns, National Historic Records, a new Building Code, and the Premiation of Best Buildings. With regard to education, classes in Design and courses of instruction in Building Construction and kindred subjects had already been established at Reading and Slough, and preliminary steps have been taken to establish similar classes at Oxford. To encourage architectural design among the younger members of the Association, the President has offered three prizes for a competition in the design of a building upon an imaginary site in a county town. A competition for measured drawings of any building of architectural interest erected prior to 1800 has been held, and five sets of excellent drawings have been submitted, the successful competitors being Mr. R. J. Carter with 13 sheets illustrating Mapledurham House, and Mr. C. H. A. Willets with 4 sheets illustrating Mapledurham Church. The Report of the Association concludes with a tribute to Mr. Warren for the whole-hearted and enthusiastic way in which he has carried out the duties of his important office.

OBITUARY

Obituary

WILLIAM BLACK [F.]

By the untimely decease of Mr. William Black, F.R.I.B.A., Cape Town loses one of its best known architectural practitioners, and the Cape Institute of Architects one of its original foundation members. Mr. Black died while on a professional visit up-country, during which he contracted double pneumonia.

Born in Australia in 1869, Mr. Black was articled to a leading Melbourne architect and engineer, with whom he completed the usual course of professional training. As a young man he took several prizes offered by the Royal Victorian Institute of Architects, including the President's prize; and he was elected a Fellow of this Society when in his twenty-first year, and a Fellow of the Royal Institute in 1902.

Coming to South Africa in 1892, Mr. Black began practice in Cape Town and achieved marked success, the practice having been continued down to the present time in association with Mr. Fagg, who joined him in 1895. For a short time during 1905 Mr. Black also practised in Johannesburg. During the last twenty years the firm of Black and Fagg has been successful in many competitions, and among others secured the first and second prizes in 1902 for the buildings of the Mutual Life of New York in Cape Town. Mr. Black was a keen student of up-to-date building methods, and made extensive tours in America, Europe, Australia and the East. During one of these he had the trying experience of shipwreck on the *Pericles*, off the coast of Australia, in 1910.

Messrs. Black and Fagg have carried out many notable public buildings, including the Cape of Good Hope Savings Bank and town halls at such widely separated centres as Potchefstroom, Victoria West, Robertson and Caledon, at which latter place the well-known sanatorium was also erected from their designs. The firm has been prominently associated with the design of scholastic buildings all over the Cape Province, of which the chief is probably the Good Hope Seminary in Cape Town.

Mr. Black was interested in all matters pertaining to public and social welfare, and represented one of the wards on the City Council for several years. He was a keen student of town-planning and housing schemes.

JAMES CROCKER [F.]

The death of Mr. James Crocker, a well-known architect and surveyor of Exeter and the West of England, occurred on the 18th inst. at Exeter after a short illness. Mr. Crocker was an Institute Silver Medallist (Drawings, 1875), and was elected a Fellow in 1886. Educated at Shebbear College, he went to Exeter and was articled to Mr. E. H. Harbottle in 1867, and later became his managing assistant. He commenced practice in 1876, and up to the time of his death was actively engaged at his office. He carried out many important works, the "Queen's Hall," Eastgate Arcade and Coffee Tavern, the private residences of "St. Just" and "Langdon," a large number of restorations, the rebuilding of churches and chapels, as well as many business premises and private houses in Exeter and

country houses in the surrounding district. As a Past-President and Member of the Council of the Devon and Exeter Architectural Society, his sound judgment in Society matters was greatly appreciated by the members. As President of the Devon and Exeter Society he represented that body on the R.I.B.A. Council in 1899-1900, and again in 1908-1909. He acted as arbitrator in many important architectural disputes. In 1886 he published a book, *Old Exeter*, which is of great value, as many of the houses which he illustrated have since disappeared. Mr. Crocker, although not a member of many public bodies, always took a keen interest in public affairs of the city.

ARTHUR HENRY REID [F.]

News has been received from Cape Town of the death of Mr. Arthur Henry Reid, who was elected an Associate in 1881 and a Fellow in 1889. He went to Cape Town in 1877 and was for some time in the municipal service as a draughtsman and surveyor. He retired from the public service in 1882 and started private practice at Port Elizabeth. In 1887, he left for the then recently discovered Rand goldfields, where it is believed he was the first practising architect. Many of the important buildings in that centre were erected from his designs. Subsequently he transferred his activities to Cape Town, where he was joined in partnership by Mr. W. J. Delbridge [A.J.]

During the course of his long life in South Africa, Mr. Reid filled a number of public offices, having been a member of the old Staats Raad of Johannesburg, and also in earlier days a member of Cape Town City Council. He took a great personal interest in public health matters, and in this connection was instrumental in the training of municipal inspectors for taking their diplomas in sanitary science. He was also keenly interested in the Association for the Prevention of Consumption, of which, for a time, he filled the office of president. He had also been president of the Cape Institute of Architects, and was actively associated with numerous other public bodies and associations.

Mr. Reid visited Europe on many occasions in comparatively recent years, and was a well-known figure at the Institute. His death will be greatly regretted by his many friends in England.

GEORGE BEAUMONT.

The American Institute of Architects has recently lost one of its best known members by the death of Mr. George Beaumont. Mr. Beaumont was born at Leeds in 1854, and in 1880 received the annual medal of the Leeds and Yorkshire Architectural Society. In 1881 he went to Chicago, and in 1886 started practice for himself, in which he established a high position amongst Chicago architects. He was Secretary and Past-President of the Illinois Chapter, Past-President of the Illinois Society of Architects, and founder and ex-President of the Chicago Architectural Sketch Club.

We regret to announce the death of M. Enrique-Maria Repullés y Vargas, Secretary of the Royal Academy of San Fernando at Madrid, Hon. Corresponding Member.

NEWMAN : ARTHUR HARRISON
[Associate 1879, Fellow 1889.]

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE BIRMINGHAM CIVIC SOCIETY.

The report of this Society, which "has been formed o Birmingham citizens who see the necessity of stimulating a wider concern for the beauty of their city," for the year 1921-22, has recently been published.

The general aims of the Society are summarised as follows :—

No. 1.—To stimulate historical interest in the city, and to this end to preserve all buildings and monuments of historical worth.

No. 2.—To preserve all objects of beauty, and to maintain a vigilant opposition to all acts of vandalism.

No. 3.—To promote a sense of beauty, and to stimulate civic pride in the domestic and civic life of the citizens, by urging the adoption of the highest standards of architecture for domestic buildings, offices, warehouses, factories, etc.

No. 4.—To work for a more beautiful city :—

(a) By advocating the public acquisition of land for the provision of open spaces for recreation purposes, and also for parks, parkways, squares, gardens and ornamental features at road crossings, etc.

(b) By assisting with advice any scheme or works controlled by public bodies, ranging from town planning to designs for parks, bridges, fountains, memorials, shelters, seats, lamp standards, tramway masts, and the like.

(c) By co-operating with the Education Committee and Training Guilds for the development of local art, and helping to co-ordinate the efforts of existing societies by uniting architectural, engineering, artistic and handicraft groups in a common aim.

No. 5.—In addition to influencing the work of others, to select suitable projects to be carried out by the Society itself.

No. 6.—The Society shall seek to carry out these aims by means of newspaper and other propaganda, including exhibitions, lectures, competitions, etc.

It is due to the persistent advocacy of the Society that the Advisory Art Committee for Birmingham has been formed and advanced to the stage of trial ; a committee to which all new designs for public buildings, bridges, statues, fountains, monuments and memorials to be erected in the streets, public parks or any municipal building shall be first submitted.

The President of the Society is the Lord Mayor of Birmingham, and the Vice-Presidents and members of Council are drawn from leading citizens—the Bishop of Birmingham, Mr. Neville Chamberlain, M.P., and others Mr. Herbert T. Buckland [F.], Mr. William Haywood [F.] (who is the Hon. Secretary), Mr. G. Salway Nicol [F.] and Mr. W. Alex. Harvey [F.] are members of the Council and the Technical Committee.

ARCHITECTURAL EDUCATION IN OXFORD.

The Council of the Institute have made a grant of £30 towards the cost of a series of Architectural Lectures in Oxford.

THE CODE OF PROFESSIONAL CONDUCT AND PRACTICE.

The Code of Professional Conduct and Practice adopted in 1920 and published in the *Kalendar* has been rescinded and ordered to be deleted from the *Kalendar*.

EXHIBITION OF ARCHITECTS' WORKING DRAWINGS.

An Exhibition of Architects' Working Drawings will be held in the Galleries of the Royal Institute of British Architects from Wednesday, 8 November 1922, to Wednesday, 22 November 1922.

The Exhibition, which will be open between the hours of 10 a.m. and 8 p.m. daily (Saturdays, 10 a.m.—1 p.m.), includes drawings kindly lent by :—

Mr. A. J. Davis [F.] (Royal Automobile Club).

Mr. E. Guy Dawber, F.S.A. [F.] (Eyford Park, Gloucestershire).

Sir Robert Lorimer, A.R.A., R.S.A. [F.] (Chapel of the Knights of the Thistle).

Sir Edwin Lutyens, R.A. [F.] (Imperial Delhi) (Hampstead Garden Suburb).

Mr. G. Gilbert Scott, R.A. [F.] (New Catholic Church, Northfleet) (Memorial Chapel, Chester Cathedral).

The Exhibition is intended primarily for Students of Architecture ; they will be able to examine the drawings that a practising architect hands to a contractor, and thus will be afforded an insight into the methods adopted in a modern architect's office.

A *Special Students' Evening* will be held at the Exhibition on Friday, 17 November 1922, at 8 p.m. All Students are cordially invited to attend. The architects who have lent the exhibits—or their representatives—will be requested to be present in order to explain the drawings to Students. Refreshments will be provided and no cards of admission are required.

TECHNICAL COLLEGE, CARDIFF.

Ten Scholarships, tenable in the various Departments of the Technical College, covering tuition fees and maintenance grants of £40 per annum for three years, are offered each year by the City of Cardiff Technical Instruction Committee for competition to residents and non-residents of Cardiff. At the Scholarship Examination recently held, Mr. Alfred C. Light, of Hanley, Stoke-on-Trent, obtained one of the Scholarships tenable in the Department of Architecture and Civic Design.

R.I.B.A. MEDAL FOR SCHOOLS OF ARCHITECTURE.

The R.I.B.A. Board of Architectural Education Medal for the best set of Drawings submitted by post-graduate Students exempted from the R.I.B.A. Final Examination, at the Exhibition recently held at the Royal Institute, has been awarded to Mr. P. B. Haswell, B.Arch., Liverpool University. Mr. Haswell will receive the Medal at the Annual Presentation of Prizes at the R.I.B.A. The Drawings prepared by Miss E. G. Cooke, of the Architectural Association, received high commendation.

THE R.I.B.A. EXAMINATIONS AND YOUNG ARCHITECTS.

The Council have decided to approach the Allied Societies and request them to make schedules of architects practising in their districts, and to endeavour to obtain from them full particulars of the pupils in their offices so as to enable the Institute to approach them directly and bring to their notice the importance of preparing for and passing the R.I.B.A. Examinations.

EXAMINATIONS AND COMPETITIONS

The Examinations

EXAMINATIONS OVERSEAS.

The Examinations have been held in the following centres Overseas :—Cape Town, Melbourne and Sydney.

CAPE TOWN.

Of the 5 candidates who were admitted to the *Special War Examination*, 4 passed and 1 was relegated.

The successful candidates are as follows :—

HART : EDWARD GOYEN, 85, St. Georges Street, Cape Town.
MILLIGAN : THOMAS WILLIAM, Ashton Lodge, Antrim Road, Three Anchor Bay, Cape Town.

STOCKS : CLIFFORD WILLIAM BURNETT, City Hall, East London, S. Africa.

TAIT : ALFRED ALEXANDER, Grahamstown, S. Africa.

The following candidate passed the *Special Overseas Examination* :—

WILSON : JOHN GODDARD, 1,030, Arcadia Street, Pretoria, S. Africa.

MELBOURNE.

Of the 9 candidates who were admitted to the *Special War Examination*, 5 passed and 4 were relegated.

The successful candidates are as follows :—

EALES : WILLIAM HENDERSON, 26, Blessington Street, St. Kilda, Australia.

FINLAYSON : MALCOLM, Main Street, Heidelberg, Victoria, Australia.

HENDERSON : WILLIAM A., 469, Chancery Lane, Melbourne.

MARTIN : MARCUS WILLIAM, 352, Collins Street, Melbourne.

WILLIAMS : PERCY SCOTT, Works and Railways Department, Commonwealth Federal Works Department, Melbourne.

SYDNEY.

Of the 11 candidates who were admitted to the *Special War Examination*, 3 passed and 8 were relegated.

The successful candidates are as follows :—

MILLS : JOHN CHECKLEY ROBINSON, 38, Martin Place, Sydney.

PHILLIPS : HERBERT ERIC, Heretaunga Street, Hastings, Hawkes Bay, New Zealand.

PHILLIPS : LIONEL BLYTHEWOOD, "Blythecote," Wyatt Avenue, Burwood, Australia.

One candidate sat for, and was relegated in, the *Special Overseas Examination*.

The following candidate passed the *Intermediate Examination* :—

HODGSON : FRANK LESLIE, 5, West Street, North Sydney, N.S.W.

EXEMPTION FROM THE FINAL EXAMINATION.

The following Candidates, who have taken approved Courses at their respective Schools of Architecture, have satisfied the Vice-Presidents of the Royal Institute in the Examination in Professional Practice :—

Mr. E. R. Arthur, School of Architecture, University of Liverpool.

Mr. W. A. Devereux, A.A. School of Architecture, The Architectural Association.

Mr. P. B. Haswell, School of Architecture, University of Liverpool.

Mr. I. A. Moodie, School of Architecture, Robert Gordon Technical College, Aberdeen.

Mr. G. B. Scotland, The Glasgow School of Architecture.

THE FINAL AND SPECIAL EXAMINATIONS.

The Ashpitel Prize for 1922 and the Mark of Distinction for Thesis have been awarded to Mr. A. S. Reid.

Competitions

RYDE (I.O.W.) PAVILION COMPETITION.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

THE INTERNATIONAL LABOUR OFFICE, GENEVA.

The Council of the Institute have decided to approach the Foreign Office and request that steps should be taken to persuade the promoters of the International Labour Office Competition to open it to the architects of all nations who are members of the League of Nations.

OLD CRANLEIGHAN SOCIETY CRICKET PAVILION COMPETITION.

The Competitions Committee of the Royal Institute of British Architects have been in negotiation with the promoters of this Competition, and the conditions are now in order. The veto of the Royal Institute of British Architects is accordingly removed and Members are at liberty to take part in the Competition.

"THE MODERN HOSPITAL'S" COMPETITION FOR SMALL HOSPITAL PLANS.

The Modern Hospital Publishing Company, of Chicago, has promoted an Architectural Competition for Small Hospital Plans. Premiums of \$500, \$300 and \$200 will be paid to the authors of the designs placed first, second and third by the jury.

Architects desiring to take part in the competition should write immediately to the Modern Hospital Publishing Co., 22, East Ontario Street, Chicago, Illinois, U.S.A.

Designs must be delivered not later than 15 January, 1923.

A copy of the Conditions of the Competition can be seen in the Library of the Royal Institute of British Architects, 9, Conduit Street, W.1.

IAN MACALISTER,
Secretary.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

GENERAL MEETING, MONDAY, 20 NOVEMBER.

The Second General Meeting (Ordinary) of the Session 1922-23 will be held on Monday, 20 November, 1922, at 8 p.m., for the following purposes :—

To read the Minutes of the Meeting held on the 6 November 1922 ; formally to admit Members attending for the first time since their election.

To read the following Paper, " Illuminating Engineering in Relation to Architecture." By Lawrence M. Tye.

UNIFICATION AND REGISTRATION.

ASSOCIATES' COMMITTEE.

At a meeting of the Associates' Committee, held at the Royal Institute of British Architects in October, 1922, it was agreed that :—" Having regard to the fact that the Main Committee on Unification and Registration had been dissolved, no useful purpose would be served by the continuance of the Associates' Committee, and that it should therefore notify the general body of Associates, by whom it was appointed, of its dissolution, and inform them at the same time that the results of the Committee's labours could be seen on application to the Secretary R.I.B.A."

Notices

An election of members will take place at the Business General Meeting, Monday, 4 December. The names and addresses of the candidates (with the names of their proposers), found by the Council to be eligible and qualified for membership according to the Charter and By-laws and recommended by them for election, are as follows :—

AS FELLOWS (15).

- ANSELL : WILLIAM HENRY, M.C. [A. 1900], 1 Gray's Inn Square, W.C.1 ; 60 Holland Park, W.11. Proposed by C. Harrison Townsend, Henry M. Fletcher, F. Winton Newman.
- BOTHWELL : EDWIN FORBES [A. 1915], Union Building, The Bund, Shanghai, China. Proposed by A. W. S. Cross, Paul Waterhouse, Arthur J. Davis.
- CALLOW : CHARLES FRY [A. 1905], 47 Havelock Road, Hastings ; Devonshire Road, Bexhill ; 74 London Road, St. Leonards-on-Sea. Proposed by Arthur Wells, Henry James Wise, W. G. Wilson.
- CARNELL : JOHN LAURIE [A. 1895], St. Clair, Gaywood Road, King's Lynn. Proposed by James Crocker, Edwin J. Tench, Edward Boardman.
- COLLINS : HENRY RICHARD [A. 1921], Edgar House, City Walls, Chester. Proposed by P. A. Hinchliffe and the Council.
- DITCHBURN : DAVID WILLIAM [A. 1908], Standard Building, Hornby Road, Bombay, India. Proposed by W. A. Chambers, G. Wittet, Henry A. Saul.
- GOTCH : LAURENCE MURSELL [A. 1906], Bank Chambers, Kettering ; 23 Station Road, Kettering. Proposed by J. A. Gotch, Andrew N. Prentice, Arthur Blomfield.
- MARWICK : THOMAS PURVES, F.S.I. F.S.A.(Scot.) [A. 1883], 43 York Place, Edinburgh. Proposed by Alexander N. Paterson, John Keppie, James Salmon.
- MIDDLETON : ORLANDO [A. 1895], 55 Lattimore Road, St. Albans ; Chequers Hill, Flamstead, near Dunstable. Proposed by W. H. Stucké, W. White-Cooper, Jno. T. Cackett.
- RILEY : WILLIAM HENRY [A. 1906], 25 Horsefair Street, Leicester ; Whitethorne, Evington Lane, Leicester. Proposed by Arthur H. Hind, Howard H. Thomson, William M. Cowdell.

RYDE : FRANK CECIL [A. 1888], 12 Little College Street, Westminster, S.W.1 ; " Five Trees," Oatlands Chase, Weybridge, Surrey. Proposed by Herbert Wigglesworth, H. P. Burke Downing, Sydney Perks.

SHORT : Major ERNEST WILLIAM GEORGE, C.B.E., F.S.I., S.R.E.S. [A. 1921], Royal Engineers Office, Bulford Camp, Salisbury Plain ; The Mount, East Harnham, Salisbury. Proposed by Edward J. Bridges, H. Carter Pegg, John Kirkland.

SOUTAR : CHARLES GEDDES [A. 1921], 15 South Tay Street, Dundee ; Easterbank, Barnhill, Dundee. Proposed by P. H. Thoms, Alexander N. Paterson, William B. Whitie.

STRETTON : CLEMENT [A. 1901], Alliance Chambers, Horsefair Street, Leicester ; " The Brackley," Knighton Road, Leicester. Proposed by Arthur H. Hind, William M. Cowdell, Charles Kempson.

TANNER : EDWIN JOHN [A. 1911], Carlton Chambers, 12 Regent Street, S.W.1 ; 12 Hampstead Way, N.W.11. Proposed by Sir Henry Tanner, Henry Tanner, Hugh P. G. Maule.

AS ASSOCIATES (141).

*ALEXANDER : WALTER [S. 1922—Special War Exemption], 72 Mafeking Road, Quetta, India. Proposed by Professor Charles Gourlay, Major Bernard Frank Matthews, David B. Hutton.

ALLEN : CHARLES WILLIAM [Special War Examination], c/o Arthur W. Brewill, Esq., 1 Low Pavement, Nottingham ; 116 Mansfield Road, Nottingham. Proposed by Arthur W. Brewill, Harry G. Watkins, Basil E. Baily.

ANGUS : ANDREW EDWARD [Special War Examination], 116 London Street, W., Windsor, Ont., Canada. Proposed by the Council.

AUSTIN : LESLIE MAGNUS, A.R.C.A. [Special War Examination], Royal College of Art, South Kensington, S.W. ; 7 Rowan Road, Hammersmith, S.W. Proposed by Professor Beresford Pite, Professor S. D. Adshead, Stanley C. Ramsey.

BACKWAY : GERALD HENRY [Special War Examination], 7 New Square, Lincoln's Inn, W.C.2 ; 22 Birdhurst Road, Wandsworth, S.W.18. Proposed by the Council.

BAILLIE : WILLIAM [Special Examination], 78 Park Drive South, Whiteinch, Glasgow. Proposed by John Hamilton, Colin Sinclair, Alexander N. Paterson.

BALL : WALTER FREDERICK [Special War Examination], 53 Howard Street, Gloucester. Proposed by the Council.

BALL : WILLIAM ARTHUR CESSFORD [Special Examination], 73 St. James's Road, Croydon. Proposed by Ernest G. Allen, John P. Briggs, Matthew J. Dawson.

BANKART : HUGH CHARLES [Special War Examination], c/o Sir Edwin L. Lutyens, R.A., 7 Appletree Yard, York Street, St. James's Square, S.W.1 ; 25 Parkhill Road, Hampstead, N.W.3. Proposed by E. Guy Dawber, Walter R. Jaggard Sir Edwin L. Lutyens.

BARNARD : CHARLES DOWNING [Special War Examination], 188 High Road, Leyton, E.11. Proposed by S. B. Caulfield, G. Topham Forrest, W. E. Riley.

BATHURST : LESLIE JOHN [Special War Examination], 50 Woodside Road, Wood Green, N.22. Proposed by Walter R. Jaggard, Herbert Baker, Robert Atkinson.

BEAUFOY : SAMUEL LESLIE GEORGE [Special War Examination], 163 Tufnell Park Road, Holloway, N.7. Proposed by T. P. Bennett, H. G. Crothall, Henry Tanner.

BEESTON : CHARLES NICHOLSON [Special War Examination], 206B Adelaide Road, N.W.4. Proposed by Frank S. Swash, Fredk. R. Hiorns, W. E. Riley.

BEESTON : WILFRED [Special War Examination], 92 Falkner Street, Liverpool. Proposed by Professor C. H. Reilly, T. Taliesin Rees, Gilbert Fraser.

* This candidate qualified for registration as Student in 1910.

NOMINATIONS FOR ELECTION

- BINGE : JOSEPH WALLACE, M.C. [Special War Examination], The Oaklands, Acacia Grove, New Malden, Surrey. Proposed by the Council.
- BIRD : ERIC LESLIE [Special War Examination], Austenwood Lane, Chalfont St. Peter, Bucks. Proposed by W. S. Skinner, Robert Atkinson, T. Lawrence Dale.
- BLAKELEY : TOM [Special War Examination], Town Hall, Dewsbury ; 28 Orchard Street, Savile Town, Dewsbury. Proposed by J. Forster, J. W. Benwell, J. H. Martindale.
- BOOKER : ALFRED VINCENT [Special War Examination], 8 Old Jewry, E.C. ; 3 Montem Road, Forest Hill, S.E.23. Proposed by Professor Beresford Pite, Thomas B. Whinney, Col. A. B. Hubback.
- BOX : HARRY EWART [Special War Examination], 54 Holland Road, Maidstone. Proposed by Albert William Smith and the Council.
- BRAMWELL : JOHN [Special War Examination], Royal Insurance Buildings, 9 North John Street, Liverpool ; 21 Upper Duke Street, Rodney Street, Liverpool. Proposed by E. Percy Hinde, Gilbert Fraser, E. Bertram Kirby.
- BRIERS : REGINALD, M.C. [Special War Examination], "Hanover House," Tennyson Road, Luton, Beds. Proposed by T. P. Bennett, Sir Henry Tanner, Henry Tanner.
- BROADBENT : JOHN STEWART [Special War Examination], 36 Bruce Road, Bow, E.3. Proposed by Robert Atkinson, Stanley Hamp, E. Stanley Hall.
- BROTHERS : COLIN STANLEY [Special War Examination], 49 Whitechapel, Liverpool. Proposed by T. Taliesin Rees, E. Percy Hinde, Gilbert Fraser.
- BROWN : ALFRED JOHN [Special War Examination], 35 Hand-side Lane, Welwyn Garden City, Herts. Proposed by Henry M. Fletcher, E. Stanley Hall, Percy B. Tubbs.
- BROWN : WALTER [Special War Examination], Ladbrooke Road, Horley, Surrey. Proposed by Robert Atkinson, Arthur Keen, Charles E. Varnell.
- BUTLER : BERTRAM [Final Examination], 31 Priory Street, Dudley. Proposed by Professor C. H. Reilly, A. T. Butler and the Council.
- BUYSMAN : CORNELIUS JAMES ALEXANDER KELDER [Special War Examination], 165, South Croxton Road, Dulwich, S.E.21. Proposed by George Hubbard, A. W. S. Cross, M. E. Collins.
- CALEY : WALTER HERBERT [Special War Examination], 53 Queen's Road, Tunbridge Wells. Proposed by Robert Atkinson, Stanley Hamp, E. Stanley Hall.
- CARTER : GEORGE BERTRAM [Special War Examination], 17 Queen Anne's Gate, S.W.1 ; 24 Craigton Road, Eltham, S.E.9. Proposed by Sir Edwin L. Lutyens, Professor Beresford Pite, Ernest B. Glanfield.
- CARTWRIGHT : WILFRED [Special War Examination], 20 Cambridge Street, Loughborough, Leicestershire. Proposed by Arthur H. Hind, Howard H. Thomson, Charles Kempson.
- CHISHOLM : ALEXANDER MACLEOD [Special War Examination], 13 Euston Grove, Birkhead. Proposed by Professor C. H. Reilly, W. E. Willink, Arnold Thornely.
- CLACK : JOHN [Special War Examination], 104 Victoria Street, Westminster, S.W.1. Proposed by Melville S. Ward, W. H. Harrison, H. W. Hetherington Palmer.
- CLARK : SIDNEY [S. 1911—Special War Exemption], 10 Guilford Place, Bloomsbury, W.C.1. Proposed by A. Dunbar Smith, Henry M. Fletcher, Sidney K. Greenslade.
- CORNES : ERNEST HAROLD [Special War Examination], "Meadowsides," Cambrian View, Chester. Proposed by Edgar Quiggin, Professor C. H. Reilly, Gilbert Fraser.
- CRICKMAY : GORDON HAYTER [Special War Examination], 75 Victoria Street, S.W.1. Proposed by H. D. Searles-Wood, Bernard Dicksee, J. W. Stanley Burmester.
- CROWTHER : JOHN HENRY, junr. [Special War Examination], "Craig Lea," Moorlands Avenue, Dewsbury, Yorks.
- Proposed by Professor C. H. Reilly, Frederick W. Ridgway and the Council.
- DENT : ALWYN RONALD [Special War Examination], Grove Cottage, Bell's Hill, High Barnet, Herts. Proposed by Professor A. E. Richardson, C. Lovett Gill, Professor S. D. Adshead.
- EASTWOOD : FREDERICK GEORGE [Special War Examination], 60 King Street, Manchester. Proposed by Paul Ogden, Percy S. Worthington, Isaac Taylor.
- EGGINS : FRANK WALLIS [Special War Examination], 5 Church Street, Paignton, South Devon. Proposed by Norman G. Bridgman, Arthur Southcombe Parker, J. Archibald Lucas.
- ELLIS : JACK [Special War Examination], The Old Rectory, Cublington, Bucks. Proposed by Professor A. E. Richardson, C. Lovett Gill, T. M. Wilson.
- FARE : ARTHUR CECIL [Special War Examination], 18 New Bond Street, Bath. Proposed by C. F. W. Dening, Richard C. James, B. Wakefield.
- FARRIER : ARCHIBALD VICTOR [Special War Examination], 101 The Ridgeway, Wimbledon, S.W.19. Proposed by Robert Atkinson, Professor Beresford Pite, Ernest G. Allen.
- FLITCROFT : ALFRED CRUMBLEHULME [Special War Examination], 172 High Street, Bolton, Lancs. Proposed by John B. Gass, Jonathan Simpson, Paul Ogden.
- FLUTTER : ANTHONY THOMAS [Special War Examination], 78 Cicada Road, Wandsworth Common, S.W.18. Proposed by Professor A. E. Richardson, C. Lovett Gill, Robert G. Muir.
- FRANCIS : CECIL WILLIAM [Special War Examination], 15 Savernake Road, Hampstead, N.W.3. Proposed by Raymond Unwin, Herbert Baker, Jas. C. Wynnes.
- FRASER : BRIGHT [Special War Examination], 5 Vaughan Road, Wallasey, Cheshire. Proposed by John Bradshaw Gass, Geoffrey Lucas, Professor S. D. Adshead.
- FRYER : EDGAR [Special War Examination], 46, Carter Street, Princes Road, Liverpool. Proposed by Edgar Quiggin, Professor C. H. Reilly, Gilbert Fraser.
- GADD : GEORGE CYRIL [Special War Examination], Town Hall Chambers, Bromsgrove ; Redlands, Marlboro' Avenue, Bromsgrove. Proposed by W. H. Bidlake, Edwin F. Reynolds, C. E. Bateman.
- GEORGE : CONRAD ERIC [Special War Examination], 22 Caroline Street, Eaton Terrace, S.W.1. Proposed by Henry James Wise, Charles Nicholas, J. E. Dixon-Spain.
- GILDER : FRAMROZ NOWROJI [Final Examination], Indian Students' Hostel, Keppel Street, W.C.1. Proposed by Walter R. Jaggard and the Council.
- GLASS : JAMES SCOTT, M.C. [Special War Examination], 38 Eastwood Road, Goodmayes, Essex. Proposed by Jas. Kennedy Hunter, James Lochhead, G. Topham Forrest.
- GOWER : LAWFORD RAYMOND [Special War Examination], "Maes-y-coed," Shelone Road, Briton Ferry. Proposed by W. James Nash, C. Glynn Evans, Glendinning Moxham.
- GRAY : JAMES [Special War Examination], 43 York Place, Edinburgh ; 113 Dalkeith Road, Edinburgh. Proposed by John Wilson, John Jerdan, A. Lorne Campbell.
- GUNSTON : EDWARD LESLIE [Final Examination], Alpenrose, Kinmore, Reading. Proposed by T. Brammall Daniel, Arthur Keen, Sir Banister Fletcher.
- HALL : HERBERT JAMES [Special War Examination], 52 Paulton Square, King's Road, Chelsea, S.W. Proposed by Percy Thomas, Harry Teather, Frederick R. Hiorns.
- HALL : MONTAGU ASHLEY [Special War Examination], 3 Silver Street, Lincoln ; Branston, near Lincoln. Proposed by W. G. Watkins, Henry G. Gamble, and the Council.
- HAMPTON : JAMES FREDERICK [Special War Examination], Brooker's Farm, Beltring, Paddock Wood, Kent. Pro-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- posed by Alexander Ross, William Williamson, C. H. Strange.
- HICKEY : PATRICK [Special War Examination], "Burslem House," Whitehall Road, Grays, Essex. Proposed by W. H. Hobday, Professor A. E. Richardson, Arthur Crow.
- HOFLER : MAX RICHARD [Final Examination], 68 Cambridge Terrace, Hyde Park, W.2. Proposed by Sir Edwin L. Lutyens and the Council.
- HOLDEN : WALTER FREDERICK CLARKE, M.C. [Special War Examination], 15 Bishopsgate, E.C.2 ; Salter's Acre, Gregories Road, Beaconsfield. Proposed by F. C. R. Palmer, C. H. Brodie, James Ransome.
- HOPWOOD : JAMES [Special War Examination], 20 Baker Road, Harlesden, N.W.10. Proposed by Walter R. Jaggard, E. Vincent Harris, William E. A. Brown.
- HOWITT : LEONARD CECIL [Special War Examination], 20 Maxwell Road, West Derby, Liverpool. Proposed by Professor C. H. Reilly and the Council.
- HUBBARD : GEORGE EDWARD [Special War Examination], Pleasant Stile, Newnham-on-Severn, Gloucestershire. Proposed by George Hubbard, A. W. S. Cross, Charles E. Varndell.
- HUGHES : ELEANOR KATHERINE DOROTHY [Final Examination], 28 Moreton Street, S.W.1. Proposed by Charles E. Varndell, J. H. Brewerton, Robert Atkinson.
- ILLINGWORTH : ARTHUR JOHN ALEXANDER [Special War Examination], P.W.D. Secretariat, Bombay, India. Proposed by T. E. Eccles, E. Guy Dawber, Gilbert Fraser.
- JARVIS : HAROLD EDGAR [Special War Examination], No. 1 Bungalow, Oxford Rd., Banbury. Proposed by the Council.
- JENSON : ALEXANDER GEORGE [Final Examination], 20 Carpenter Road, Edgbaston, Birmingham. Proposed by G. Salway Nicol, J. Coulson Nicol, W. H. Bidlake.
- JOHN : LEWIS [Special War Examination], Llantrithyd, near Cowbridge, Glam. Proposed by T. Alwyn Lloyd, Percy Thomas, Harry Teather.
- JOHNSON : WILLIAM ARTHUR [Special War Examination], 32 Brantwood Terrace, Moston, Manchester. Proposed by Percy S. Worthington, Francis Jones, Frank B. Dunkerley.
- JONES : THOMAS EDWARD [Special War Examination], "Teryn," Port Dinorwic, North Wales. Proposed by Professor C. H. Reilly, Robert Pierce, Richard Hall.
- KEMP : LESLIE HAGGER [Special War Examination], 5 Lorrimore Square, Kennington Park, S.E.17. Proposed by Robert Atkinson, John Hamilton, Walter R. Jaggard.
- KENDALL : CHARLES, M.C. [Special War Examination], The Gables, Ossett, Yorks. Proposed by Percy Robinson, H. S. Chorley, W. Carby Hall.
- KENNEDY : COLIN WHITE [Special War Examination], 13 Carlton Road, East Sheen, S.W.14. Proposed by Robert Atkinson and the Council.
- KILLENDER : HENRY CLAUDE [Special War Examination], 16 Lord Street, Liverpool ; 39 Merton Road, Bootle, Lancs. Proposed by E. Percy Hinde, Edgar Quiggin, and the Council.
- KING : GEORGE EDWARD [Special War Examination], Forest View, Forest Road, Nottingham. Proposed by Ernest R. Sutton, A. Ernest Heazell, Harry G. Watkins.
- KINNA : KENMURE [Special War Examination], Liberty Buildings, School Lane, Liverpool ; "Iraq," Egremont Promenade, Egremont, Cheshire. Proposed by Gilbert Fraser, Leonard Barnish, E. Percy Hinde.
- LAMBERT : FREDERICK HENRY [Special War Examination], 36 Horsell Road, Highbury, N.5. Proposed by Professor A. E. Richardson, T. Gordon Jackson, Christopher W. F. Wheeler.
- LEVERKUS : GERTRUDE WILHELMINE MARGARET, B.A. [Final Examination], 22 Gayton Road, Harrow-on-the-Hill. Proposed by Arthur Stratton, Professor A. E. Richardson, Horace Field.
- LIDBURY : GEORGE VICTOR [Special War Examination], 262 Cavendish Road, Balham, S.W.12. Proposed by T. P. Bennett and the Council.
- LIVETT : RICHARD ALFRED HARDWICK [Special War Examination], 39 Montpelier Road, N.W.5. Proposed by Robert Atkinson, E. Stanley Hall, Charles E. Varndell.
- LONSDALE : HERBERT GREENHALGH [Special War Examination], 10 Maple Grove, Prestwich, Manchester. Proposed by Paul Ogden, Percy S. Worthington, Isaac Taylor.
- LUMSDEN : DAVID ADAMS [Special War Examination], 10A Temple Row, Birmingham. Proposed by Thomas M. Cappon, T. F. Shephard, and the Council.
- MCDONALD : JAMES ROBERT ANGUS [Special War Examination], 38 Bede Burn Road, Jarrow-on-Tyne. Proposed by William Lister Newcombe, Charles S. Errington, R. Burns Dick.
- MCNAUGHT : ROBERT MACKISON [Special War Examination], British Linen Chambers, High Street, Dumbarton ; 9 Levenford Place, Dumbarton. Proposed by William J. Blain, David Salmon, William B. Whitié.
- MCWILLIAM : ALEXANDER [Special War Examination], "Viewhill," Dovecot Road, Corstorphine, Edinburgh. Proposed by John Jerdan, John Wilson, A. Lorne Campbell.
- MANSERGH : BRIAN GEORGE LEWIS [Special War Examination], 42 Stanhope Gardens, South Kensington, S.W. Proposed by Professor C. H. Reilly, W. E. Willink, Herbert Baker.
- MARR : JOHN GIBB [Special War Examination], 2 Osborne Place, Aberdeen. Proposed by A. Marshall Mackenzie, William E. Gauld, A. G. R. Mackenzie.
- MEAGER : KILDARE STUCLEY [Special War Examination], 28 Redcliffe Square, S.W. Proposed by T. P. Bennett, Arthur J. Davis, Charles H. Gage.
- MILBURN : CHARLES WILLIAM [Special War Examination], c/o Messrs. Clark and Moscrop, Feethams, Darlington. Proposed by F. Clark, W. J. Moscrop, W. T. Jones.
- MILNER : JOHN SOWERBY [Special War Examination], 28 Craven Terrace, Lancaster Gate, W.2. Proposed by James J. S. Naylor, Charles Nicholas, J. E. Dixon-Spain.
- MINTY : WILLIAM STANLEY [Special War Examination], 35 Craven Street, Charing Cross, W.C.2. Proposed by W. Curtis Green, Arnold Mitchell, John C. T. Murray.
- MOODY : HERBERT LINE, P.A.S.I. [Special War Examination], 5 Winton Street, Ryde, Isle of Wight. Proposed by Maurice E. Webb, Professor A. E. Richardson, C. Lovett Gill.
- MOORE : FRANK ALLEN [Special War Examination], Knowle House, Knowle, Bristol. Proposed by George H. Oatley, Sir Frank W. Wills, W. S. Skinner.
- NEWSUM : ARTHUR THORPE [Special War Examination], 62 Derby Road, Long Eaton, near Nottingham. Proposed by Robert Evans, Ernest R. Sutton, Harry G. Watkins.
- NOBLE : CHARLES [Special War Examination], 52, Old Hall Lane, Withington, Manchester. Proposed by Francis Jones, Percy S. Worthington, Paul Ogden.
- NUTT : EDWARD JANES [Special War Examination], 57 Holgate Road, Nottingham. Proposed by Albert N. Bromley, Robert Evans, A. Ernest Heazell.
- O'CONNOR : EDWARD DOMINIC [Special War Examination], Kirby Muxloe, Leicester. Proposed by William M. Cowdell, Arthur H. Hind and the Council.
- PAGE : ERIC CHARLES RANDLE [Special War Examination], 32 Morden Road, Newport, Mon. Proposed by Percy Thomas, Harry Teather, Frank S. Swash.
- PALMER : KENNETH [Special War Examination], 7 Beech Avenue, Gatley, Cheshire. Proposed by John Cubbon, Isaac Taylor, and the Council.
- PARKER : JOHN KILGOUR [Special War Examination], 34 Bedford Square, W.C.1. Proposed by Robert Atkinson, Charles E. Varndell, George Edward Withers.

NOMINATIONS FOR ELECTION

- PIGGOTT : JOHN ROBERT [Special War Examination], 61 Hartshill Road, Stoke-on-Trent. Proposed by Reginald T. Longden, Alexander G. Bond, and the Council.
- PIKE : CHARLES WILLIAM [Special War Examination], Saverne House, Dorchester. Proposed by W. H. Ward, O. Maxwell Ayrton, Horace Farquharson.
- PRITCHARD : HAROLD WILLIAM [Special War Examination], 22 Stamford Street, Edge Lane, Liverpool. Proposed by Professor C. H. Reilly, T. E. Eccles, Gilbert Fraser.
- QUARMBY : GEORGE GILBERT [Special War Examination], "Uplands," Glen View Road, Burnley. Proposed by Paul Ogden, Percy S. Worthington, Isaac Taylor.
- RAE : DONALD CAMERON [Special War Examination], 217 Union Street, Aberdeen. Proposed by Robert G. Wilson, junr., A. Marshall Mackenzie, John W. Walker.
- RANKINE : ANDREW [Special War Examination], 14 Beresford Avenue, Hull. Proposed by John Bilson, W. S. Walker, L. Kitchen.
- REES : JOHN FREDERICK [Special War Examination], "Brentor," 16 Fields Road, Newport, Mon. Proposed by Frank S. Swash, C. F. Ward, John Francis Groves.
- REID : ALEXANDER SIMPSON [Final Examination], [Ashpitel Prizeman 1922], (*Distinction in Thesis*), 221 Clifton Road, Aberdeen. Proposed by J. A. O. Allan, Robert G. Wilson, junr., John W. Walker.
- RICHARDS : FRANCIS AUGUSTUS, M.A.Oxon [Special Examination], 60 Tufton Street, Westminster, S.W.1. Proposed by C. Harrison Townsend, Horace Farquharson, F. C. Eden.
- RIDDELL : WILLARD BRUCE [Special War Examination], 79 Victoria Avenue N., Hamilton, Ont., Canada. Proposed by F. S. Baker, Victor D. Horsburgh, Percy E. Nobbs.
- RILEY : HERBERT GEORGE [Special War Examination], Foxton, Leicestershire. Proposed by Arthur H. Hind, William M. Cowdell, Howard H. Thomson.
- ROGERS : WILLIAM JELF [Special War Examination], 168 Stow Hill, Newport, Mon. Proposed by W. Herbert Hobday, Frank S. Swash, C. F. Ward.
- ROSS : DAVID JOHN ALEXANDER [Special War Examination], Woodside, Inshes, Inverness. Proposed by George Watt, Robert G. Wilson, junr., John W. Walker.
- RYLE : WINIFRED [Final Examination], 16 Gordon Square, W.C.1. Proposed by Charles E. Varndell, Robert Atkinson, Horace Farquharson.
- SAWYER : FREDERICK JOHN [Final Examination], Nesscliff, 54 High Street, Addlestone, Surrey. Proposed by David Thomson, A. J. Clifford Ewen, Christopher W. F. Wheeler.
- SCOTT : HERMAN ALEXANDER [Special War Examination], 134 Gloucester Terrace, Hyde Park, W. Proposed by Charles E. Varndell, Robert Atkinson, E. Stanley Hall.
- SHEPHERD : JOHN CHIENE [Special War Examination], Gleghornie, Freshfield, near Liverpool. Proposed by Robert Atkinson, C. E. Varndell, E. Stanley Hall.
- SKIPPER : ERIC HAYWARD [Special War Examination], 55 London Street, Norwich. Proposed by Professor A. E. Richardson, Professor F. M. Simpson, George T. Brown.
- SKIPWITH : LIONEL ERNEST [Special War Examination], 34 Bedford Square, W.C.1. Proposed by Robert Atkinson, Edwin Cooper, David Barclay Niven.
- SLAUGHTER : LESLIE SCOTT [Special War Examination], 50 West End Lane, West Hampstead, N.W. Proposed by Robert Atkinson, Sir Reginald Blomfield, C. E. Varndell.
- STARLING : WILLIAM LOVE [Special War Examination], "Orby Cottage," Quickley Lane, Chorley Wood, Herts. Proposed by Edward T. Boardman, Edwin J. Tench, George J. Skipper.
- STILLMAN : CECIL GEORGE [Special War Examination], 43 Fairfield Road, Winchester. Proposed by A. C. Bunch, J. Arthur Smith, T. D. Atkinson.
- STRIBLING : HERBERT JAMES [Special War Examination], "Graffham," Sussex Place, Slough, Bucks. Proposed by W. Courtenay Le Maître, Professor A. E. Richardson, Edmund Wimperis.
- SUGDEN : HOWARD DAVY [Final Examination], "The Heath," 2 Holfold Road, Hampstead, N.W.3. Proposed by Isaac Taylor, Percy S. Worthington, Paul Ogden.
- SUTHERS : STANLEY HOLT [Special War Examination], 2 Tilmore Road, Petersfield, Hants. Proposed by the Council.
- TANNER : CHARLES PUGET [Special War Examination], 110 St. George's Terrace, Newcastle-on-Tyne. Proposed by W. Lister Newcombe, Charles S. Errington, R. Burns Dick.
- TAYLOR : WILLIAM LOGAN [Special War Examination], Schoolhouse, Kintore, Aberdeenshire. Proposed by J. A. O. Allan, George Watt, John W. Walker.
- TEMPLAR : WILLIAM RICHARD [Special War Examination], 106 Pembroke Road, Seven Kings, Essex. Proposed by M. E. Collins, C. E. Varndell, J. D. Mould.
- TOMS : BERTRAM HENRY [Special War Examination], 72 Orbel Street, S.W.11. Proposed by G. Topham Forrest, W. E. Riley, Frederick R. Hiorns.
- TOWNDROW : FREDERICK EDWARD [Special War Examination], 37 Fernbank Avenue, Sudbury Hill, South Harrow. Proposed by Arthur Stratton, Paul Waterhouse, Professor A. E. Richardson.
- TROUP : ROBERT JAMIESON, M.A., Croix de Guerre [Special War Examination], 14 Gray's Inn Square, W.C.1. Proposed by F. W. Troup, Theodore Fyfe, Henry M. Fletcher.
- VINYCOMB : WILLIAM LIDDLE [Special War Examination], 3 Granville Avenue, Forest Hall, Northumberland. Proposed by Charles S. Errington, W. H. Knowles, William Lister Newcombe.
- WHITTAKER : GEORGE [Special War Examination], 11 London Terrace, Blackburn. Proposed by Robert Atkinson, C. E. Varndell, Stanley Hamp.
- WILKINSON : HERBERT CUTLER [Special War Examination], 43, Milton Street, Nelson, Lancs. Proposed by Paul Ogden, Isaac Taylor, Francis Jones.
- WILLMOTT : STANLEY JOHN [Special War Examination], H.M. Office of Woods, etc., 1 Whitehall, S.W.1. Proposed by Charles E. Varndell, J. Osborne Smith, Francis Hooper.
- WILSON : JOHN WILLIAM GILMOUR [Special War Examination], 9 Addison Mansions, Kensington, W.14. Proposed by Herbert W. Wills, A. W. S. Cross, W. G. Wilson.
- WINSLADE : MORRIS LESTER [Special War Examination]. 4 Manor Lane, Lee, S.E.13. Proposed by T. P. Bennett and the Council.
- WYNNE-WILLIAMS : WALTER PHILLIPS [Special War Examination], 107 East Dulwich Grove, S.E.22. Proposed by Robert Atkinson, C. E. Varndell, E. Stanley Hall.
- YATES : CHARLES WILLIAM [Special War Examination], 34 Gayner Road, Filton, Bristol. Proposed by W. R. Davidge, C. F. W. Denning, Raymond Unwin.
- YOUNG : JOHN REEVE [Special War Examination], 4 Grant Road, Wealdstone, Harrow. Proposed by Professor A. E. Richardson, John Harold Kennard, Charles A. Daubney.
- YOXALL : THOMAS [Special War Examination], 8 Church Street, Burslem, Staffs. Proposed by Professor C. H. Reilly, Reginald T. Longden, Gilbert Fraser.
- AS HON. ASSOCIATES (2).
Proposed by the Council.
- HUDSON : EDWARD, 15 Queen Anne's Gate, Westminster, S.W.1.
- KEYSER : CHARLES EDWARD, M.A. F.S.A., F.S.A.Scot., F.R.Hist. Soc., F.R.Soc. of Litt., J.P., D.L., President of the British Archaeological Association, Aldermaston Court, near Reading.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

AS HON. CORRESPONDING MEMBERS (9).

Proposed by the Council.

- ARNAUD : EDOUARD, Director of the Teaching of Construction, Ecole des Beaux Arts, 11 Rue de Téhéran, Paris (8E.).
BARBER : DONN, 101 Park Avenue, New York, U.S.A.
EMERSON : Professor WILLIAM, Director of the Department of Architecture, Massachusetts Institute of Technology, 491 Boylston Street, Boston, Mass., U.S.A.
GOODHUE : BERTRAM GROSVENOR, 2 West Forty-seventh Street, New York, U.S.A.
HASTINGS : THOMAS, Royal Gold Medallist 1922, 52 Vanderbilt Avenue, New York, U.S.A.
HÉBRARD : ERNEST, Grand Prix de Rome 1904, 23 Rue Jacob, Paris (6E.).
KOGURE : Dr. A., Professor of Architecture at the Tokio University, Japan.
PLATT : CHARLES A., 101 Park Avenue, New York, U.S.A.
STEVENS : Commendatore GORHAM PHILLIPS, Director of the American Academy in Rome, Porta San Pancrazio, Rome, Italy.

Members' Column

Members, Licentiates, and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

DISSOLUTION OF PARTNERSHIP.

THE Branch Partnership formerly existing between Mr. Harold B. Moss and Mr. Richard Anderton, A.R.I.B.A., at 20 Birley Street, Blackpool, has been dissolved as and from 30 September 1922, and Mr. Anderton now has offices at 18 Winckley Street, Preston, and at 15 Hill Street, Blackpool.

PARTNERSHIPS WANTED.

ARCHITECT and Surveyor with established practice 25 miles east of London, desires to meet with a competent partner already in practice in or near London or an assistant (Associate) with a view to partnership. Apply in confidence to Box 9,112, c/o Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE, 20 years in good practice, experienced in scholarly design, University Examiner in Architecture, thoroughly practical, good knowledge of Quantities, at present practising in Provinces, desires Partnership, preferably South Coast. Moderate capital.—Box No. 2610, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

SCOTLAND.

SCOTTISH Architect in practice in Edinburgh, A.R.I.B.A., F.S.I., is prepared to collaborate with London Architects having commissions in any part of Scotland—Apply Hon. Secretary, Edinburgh A.A., 14 Hill Street, Edinburgh.

CHANGE OF ADDRESS.

MR. WILLIAM HARVEY, Owen Jones student 1913, is now practising at Dallings, Lower Road, Fetcham, near Leatherhead, Surrey, and has left 119 North Hill, Highgate.

MR. ROBERT W. STODDART [A.] has changed his address to 44 Bedford Row, W.C.1. (Telephone: Chancery 7058.)

MR. G. VAL MYER [A.], of the late firm of Fair and Myer, of 39 Furnival Street, E.C., having returned from India, has now recommenced his private practice at 58 Marylebone Lane, Wigmore Street, W.1. Telephone No.: Mayfair 7067.

APPOINTMENTS.

ASSOCIATE R.I.B.A., ex-R.E. officer, four years' service, 23 years' varied experience Edinburgh, London and the Provinces, wishes to collaborate with another Architect as Colleague or Assistant. Midlands preferred. Willing to go to U.S.A. or Colonies—Box No. 8112, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE, ex-officer, age 28, with four years' experience of private practice, seeks appointment as Manager-Assistant with view to partnership.—Apply Box 207, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

F.R.I.B.A., who has specialised for some years in theatre and cinema work would be pleased to assist another member on similar work. Might be of assistance to an Architect having work on the Continent as he can speak French fluently.—Apply Box 7112, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

THE UNIVERSITY OF SHEFFIELD.

LECTURER IN ARCHITECTURE.

The Council are about to appoint a Lecturer in Architecture. Salary, £500 per annum. The Lecturer will have the right to practise under certain conditions.

Applications should reach the undersigned, from whom further particulars may be obtained, by 22 November.

W. N. GIBBONS, Registrar.

FOR SALE.

FIVE Architect's Cabinets, three Desk Tops for Sale, £25.—For particulars apply to Miss Petherbridge, 25 Queen Anne's Gate, S.W.

Minutes I

At the First General Meeting (Ordinary) of the Session 1922-23, held on Monday, 6 November 1922, at 8.30 p.m.—Mr. Paul Waterhouse, President, in the Chair. The attendance book was signed by 37 Fellows (including 15 members of the Council), 38 Associates (including 2 members of the Council), 5 Licentiates, 1 Hon. Fellow, 1 Hon. Associate, and a large number of visitors.

The Minutes of the Meeting held on 3 July were taken as read and signed as correct.

The following Members, attending for the first time since their election, were formally admitted by the President:—E. M. Powers [F.], A. P. Lay [A.], J. H. Sturgeon [A.].

The Secretary read the names of candidates nominated for election on 4 December 1922.

The President delivered the Inaugural Address of the Session and unveiled the portrait of Mr. John W. Simpson, Past-President, painted by Sir Arthur S. Cope, R.A.

On the motion of the President, seconded by Mr. John W. Simpson, a vote of thanks to Sir Arthur Cope was passed by acclamation.

On the motion of Sir Frederic G. Kenyon, K.C.B., seconded by Sir Francis Newbolt, K.C., a vote of thanks to the President for his Address was passed by acclamation.

The President expressed his acknowledgments, and called the attention of the Meeting to a collection of prints kindly presented to the Royal Institute by Mr. Edmund H. New in recognition of his election as an Honorary Associate.

The proceedings closed and the Meeting terminated at 9.55 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Illuminating Engineering in Relation to Architecture

By LAWRENCE M. TYE.

[*Read before the Royal Institute of British Architects, Monday, 20 November 1922.*]

IN presenting this paper before your Institute it is my intention to indicate the rapid strides which have been made in Illuminating Engineering during quite recent years, and although it is impossible in one paper in any way completely to cover the subject, I hope to show how it has developed and become an applied science, enabling light to be dealt with as a definite quantity, predetermined with exactitude, and no longer giving way to rule-of-thumb application.

In order fully to realise the progress that has been made in Illuminating Engineering in recent years, it is interesting to review the changes which have taken place with our illuminants.

In early history lighting was confined to the use of vegetable oils and animal fats, contained in open braziers. The next advance was the introduction of the candle, which remained with us through the middle ages and until the time of the introduction of petroleum.

The early use of petroleum was followed by the introduction of gas lighting and the electric arc round about the year 1809, but it was not until Swan and Edison's introduction of the electric glow-lamp in 1879 and Welsbach's discovery of incandescent mantles in 1883 that real progress began to be made.

The success of gas and electricity as illuminants, particularly with subsequent progress in their efficiency, has led to the enormous application of arti-

ficial lighting, and installations have been made indiscriminately, in many cases without any regard being paid to physiological requirements or its application to get the best effects.

In the first place this advancement in the efficiency of illuminants has brought with it such high values of intrinsic brilliancy or surface brightness that it has become positively dangerous, apart from discomfort from the point of view of vision, to employ modern light sources without due precaution being taken to suppress glare, independently of light distribution.

As an example, with our early oil lamps the intrinsic brilliancy of the source was in the order of 3·8 candles per square inch. In the case of the modern gas-filled electric lamp this figure has reached as high a value as 2,000 candles per square inch. This in contrast to the brightness of average white sky, which is given as in the order of 2·5 candles per square inch.

From this will be gathered the need for the judicious application of modern light sources and for suitable methods to be applied to suppress glare.

This consideration brings us to the fact that there is a correct standard or intensity of illumination for any given class of service; thus by under or over lighting a given area you produce an unnatural condition upon the eye with the result that eye strain and consequent fatigue set in.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

These standards have been carefully collated by illuminating engineers, operators and specialists on eyesight, and a table closely complying with the following is generally to be found in the technical data issued by firms who specialise in Illuminating Engineering.

TABLE I.

Art Gallery (Walls)	..	..	..	..	4·0 to 5·0
Automobile Showroom	..	..	..	..	4·0 to 6·0
Bank (General)	..	..	..	..	3·0 to 4·0
Bath (Public)—Dressing Rooms	..	..	..	..	1·0
Swimming Bath	..	..	..	..	2·0
Billiard Room (General)	..	..	..	..	1·0 to 1·5
Billiard Table	..	..	..	..	10·0 to 15·0
Courts—					
Squash	..	..	..	..	3·0 to 6·0
Tennis	..	..	..	..	3·0 to 6·0
Church	..	..	..	..	2·0 to 3·0
Cinema	..	..	..	..	1·0 to 2·0
Desk	..	..	..	..	4·0 to 6·0
Drawing Office	..	..	..	..	6·0 to 10·0
Drill Hall	..	..	..	..	2·0 to 3·0
Engraving	..	..	..	..	10·0 to 12·0
Factory—					
General Illumination	..	..	..	..	1·0 to 2·0
General Illumination without local lighting	..	..	..	..	4·0 to 6·0
Local Bench Illumination	..	..	..	..	3·0 to 5·0
Local Bench Fine Work	..	..	..	..	5·0 to 10·0
Garage	..	..	..	..	2·0 to 3·0
Gymnasium	..	..	..	..	2·0 to 3·0
Hospital—					
Corridors	..	..	..	..	0·5
Wards (with no local illumination)	..	..	..	..	1·0 to 2·0
Wards (with local illumination)	..	..	..	..	0·5
Operating Table	..	..	..	..	10·0 to 15·0
Laundry	..	..	..	..	2·0 to 3·0
Library—					
Stock Room	..	..	..	..	1·0 to 2·0
Reading Room (without local illumination)	..	..	..	..	3·0 to 4·0
Reading Room (with local illumination)	..	..	..	..	1·0 to 1·5
Market	..	..	..	..	2·0 to 3·0
Museum	..	..	..	..	3·0 to 4·0
Office (General)	..	..	..	..	4·0 to 6·0
Power House	..	..	..	..	2·0 to 3·0
Railway Carriage	..	..	..	..	2·0 to 3·0
Reading (Ordinary Print)	..	..	..	..	3·0 to 4·0
Reading (Fine Print)	..	..	..	..	5·0 to 6·0
Residence—					
Porch	..	..	..	..	0·5
Hall (Entrance)	..	..	..	..	0·5 to 1·0
Drawing Room	..	..	..	..	2·0 to 3·0
Sitting Room	..	..	..	..	2·0 to 3·0
Dining Room (General)	..	..	..	..	0·5
(Local on Table)	..	..	..	..	4·0 to 6·0
Kitchen	..	..	..	..	2·0 to 3·0
Bedroom (General)	..	..	..	..	1·0 to 2·0
Dressing Table	..	..	..	..	3·0 to 4·0
Restaurant	..	..	..	..	3·0 to 4·0
Rink (Skating)	..	..	..	..	2·0 to 3·0
School—Classroom	..	..	..	..	3·0 to 4·0
Corridor	..	..	..	..	0·5
Sewing—Light Goods	..	..	..	..	2·0 to 3·0
Dark Goods	..	..	..	..	6·0 to 8·0
Shop Window—					
Light Goods	..	..	..	..	8·0 to 10·0
Medium Goods	..	..	..	..	10·0 to 12·0
Dark Goods	..	..	..	..	12·0 to 15·0

Shops (Interior)—					
Light Goods	..	..	..	..	4·0 to 6·0
Dark Goods	..	..	..	..	6·0 to 8·0
Station (Railway)	..	..	..	..	1·0 to 2·0
Street—					
Business (not including light from shop windows, etc.)	..	..	..	..	0·25 to 0·5
Residence	..	..	..	..	0·1
Country Roads	..	..	..	..	0·05
Studio	..	..	..	..	4·0 to 6·0
Theatre—					
Lobby	..	..	..	..	3·0
Auditorium	..	..	..	..	2·0
Train Shed	..	..	..	..	0·5 to 1·0
Typesetting	..	..	..	..	6·0 to 8·0
Warehouse	..	..	..	..	0·5 to 1·0
Wharf	..	..	..	..	0·25 to 0·5

The necessity for correct lighting was early realised in important and official circles, and the bearing that it has on the welfare of the community. A good deal of the credit of this is due to the work of the Illuminating Engineering Society, and the very active work of their Honorary Secretary, Mr. Leon Gaster.

One of the first of their achievements was a thorough investigation into the lighting of schools and classrooms, under both daylight and artificial conditions. Their findings were given in the *Illuminating Engineer Journal*, July, 1913, and July, 1914.

This was followed by a thorough enquiry into the lighting of factories and workshops.

In January, 1913, the Home Secretary formed a Committee, under the Chairmanship of Sir Richard Glazebrook, Director of the National Physical Laboratory, to enquire and report on the conditions necessary for the adequate and suitable lighting of factories and workshops, having regard to the nature of the work carried on, and the protection of the eyesight of the workers.

This Committee issued its first report in 1915 (Cmd. 8,000). This was a most complete investigation and upwards of 4,000 readings were recorded in various factories with an illumination photometer, dealing both with day and artificial lighting.

In this report it was recognised that good illumination is essential to the health, safety and efficiency of the worker, and evidence on these points was given.

The relation between proper lighting and the avoidance of accidents was particularly emphasised.

Records of accidents throughout the year show that they are most common during the dark winter months, and especially does this apply to persons falling.

ILLUMINATING ENGINEERING

This first report specified certain minimum values of illumination desirable in the interests of safety and general convenience, irrespective of that needed for the actual carrying out of the work.

In the Committee's second report, issued in June, 1921 (Cmd. 1418), there is a special recommendation in regard to the avoidance of glare. They advise that :

" Every light source, excepting one of low brightness, *i.e.*, batwing burner or paraffin flame), within a distance of 100 ft. from any person employed, shall be so shaded that no part of the filament mantle or flame shall be distinguishable through the shade unless it be so placed that the angle between the line from the eye to an unshaded part of the source and a horizontal plane is not less than 20°, or in the case of any person employed at a distance of 6 feet or less from the source, not less than 30°."

These requirements will be found to be met by the best types of modern reflectors designed so that the lamp filament has its focal point well within the reflector.

In the third report, issued in March, 1922 (Cmd. 1686), the question of working illumination is considered. The Committee gives a schedule dividing up the various operations and indicates the intensities that should be provided.

Having very briefly considered the attitude of the Government on matters relating to illumination, it is now my intention to show the basic principles of illuminating engineering.

Table 2 gives definitions for a number of terms most frequently referred to in illuminating engineering.

TABLE II.

Definitions.

The Candle Power is the unit of intensity of light.

Mean Horizontal Candle Power (M.H.C.P.) is the average candle power given off in a horizontal plane about a lamp whose axis is vertical.

Mean Spherical Candle Power (M.S.C.P.) is the mean of the candle powers in all directions about a lamp.

$$\text{M.S.C.P.} = \frac{\text{Total Lumens}}{12.6}$$

Foot Candle is the unit of intensity of illumination =

$$\frac{\text{Candle Power}}{\text{Distance}^2}$$

Lumen is the unit of quantity or flux of light. One Lumen of light is the quantity producing one foot candle intensity of illumination over an area of one square foot.

$$\text{Total Flux (Lumens)} = \text{M.S.C.P.} \times 12.6.$$

$$\text{Lumens} = \text{Foot Candles} \times \text{Square Feet.}$$

We will defer a detailed explanation of these until the showing of the lantern slides.

To study a light source intelligently it is necessary to have before us a light distribution or photometric curve in order to show the exact manner in which the light rays are distributed. This is so important that I should like to urge that no lighting unit be seriously considered unless this data is made available.

One method of obtaining these photometric curves is by taking measurements at the various angles through the vertical axis of a light source.

Fig. 1 gives such curves for the ring filament and zig-zag filament gas-filled lamps respectively.

It will be noted that the major portion of the light is emitted in the angles 30° each side of the horizontal, which in the usual way would be absorbed by the walls and ceiling.

Dividing the total light into three equal angle zones of 60° each we get approximately :

25 per cent. of the total light given from 0-60° from the vertical.

50 per cent. of the total light given from 60-120° from the vertical.

25 per cent. of the total light given from 120-180° from the vertical.

With direct lighting the only useful light is that given between 0-60 degrees other than by reflection from walls and ceiling. Therefore using a bare lamp with dark surroundings only 25 per cent. of the total light would be usefully employed.

It will therefore be seen what a great field there is for efficient lighting by the use of correctly designed reflectors.

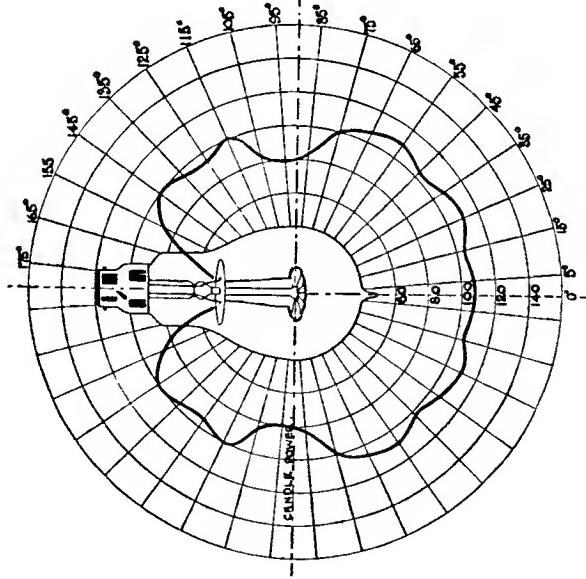
There are in the main three methods applied to the lighting of interiors, *i.e.*, direct, semi-indirect, and indirect.

Direct lighting will first be considered, as it is unquestionably the most efficient, and results can be pre-determined with extreme accuracy. This method is at least dependent upon favourable surroundings, *i.e.*, those having a high co-efficient of reflection.

By direct lighting with prismatic reflectors it is possible to redirect 75 per cent. of the total light immediately to your working plane, whilst transmitting in addition 20 per cent. for the illumination of walls and ceiling.

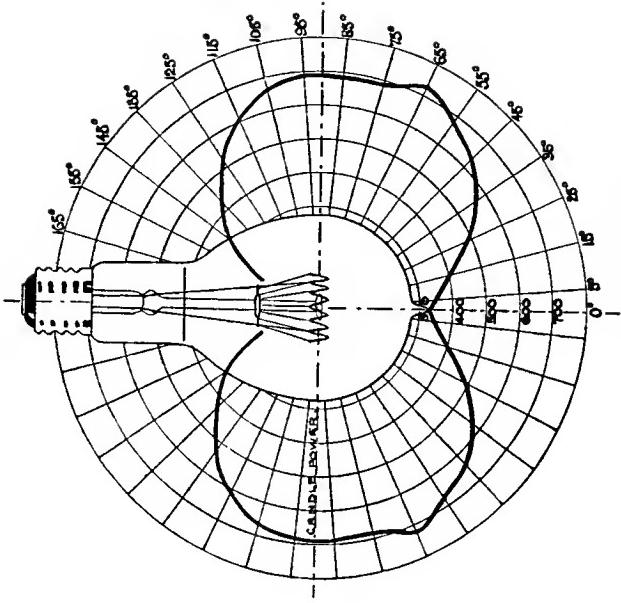
In general practice with direct lighting it is found that at least three distinct and definite types of light distribution are necessary. These, for distinction, are usually termed extensive, intensive, and focussing.

CANDLE-POWER DISTRIBUTION CURVE
200 V. 100 W. Gas Filled Lamp.
1,200 Lumens. 96 M.S.C.P.



LIGHT FLUX:
 $0^\circ - 60^\circ = 28\%$
 $60^\circ - 120^\circ = 49\%$
 $120^\circ - 180^\circ = 23\%$

CANDLE-POWER DISTRIBUTION CURVE
200 V. 500 W. Gas Filled Lamp.
7,300 Lumens. 580 M.S.C.P.



LIGHT FLUX:
 $0^\circ - 60^\circ = 25\%$
 $60^\circ - 120^\circ = 59\%$
 $120^\circ - 180^\circ = 16\%$

FIG. I.

E. STROUD,
Nov., 1921.

ILLUMINATING ENGINEERING

The extensive type reflectors are required for the lighting of low buildings, or where the distance between the points is rather great. The correct spacing ratio, *i.e.*, distance apart to height, for this type reflector, is 2 to 1 for the attainment of uniform lighting. Thus for points spaced, say, 18 feet apart, the correct height would be 9 feet above the plane you are illuminating, which is usually 2 feet 6 inches above the floor level.

The intensive type reflectors are required for the illumination of buildings with average ceiling heights and spacings. The correct ratio in this case for uniform lighting is $1\frac{1}{2}$ to 1, thus for the example cited above, *i.e.*, 18 feet spacing, the correct height would be 12 feet.

The focussing type reflectors are required for the lighting of buildings having high ceilings. In addition they are employed for the efficient lighting of buildings with galleries, where the low mounting of light units would bring them into the direct range of vision. In other cases the focussing type is used where concealed lighting effects are aimed at.

Particularly are focussing type units necessary in the case of factory lighting with overhead travelling cranes. In practice it is generally desirable to adopt as high a mounting height as possible, consistent, of course, with reasonable accessibility. By doing this you reduce the liability of glare, and the extent to which shadows are reduced in consequence is particularly noticeable. This latter point is emphasised in school lighting where you get a rising floor level.

For exceptional purposes, such as highly localised lighting, shop windows which are narrow in relation to their height, even more concentrating reflectors than those coming under the heading of focussing are required.

Now in adopting these greater mounting heights it does not follow that the lighting efficiency of an installation suffers in consequence.

In order to cover 12 feet at a height of 6 feet the light rays need to be collected into a zone of 45° . Again, to cover the same distance at a height of 8 feet the light rays need to be collected into a zone approximately 30° . Again, to cover the same distance at a height of 12 feet, the light rays are concentrated into as small a zone as 20° , but in each case with a corresponding increase in the end-on candle-power.

This is the reason why the illumination intensities are the same in either of the three cases cited above.*

It is now as well to consider the various media available for the control of light, and to see how far they may be expected to comply with the requirements as set out above.

From the point of view of efficiency and flexibility of control, also for complete conformity with the fundamental laws of optics, we will first consider prismatic glass reflectors. These reflectors are designed on the principle of total reflection and by modification in the contour it is possible to obtain any type of light distribution from extensive to extremely concentrating.

The definite character in which these results are achieved will be seen on reference to Fig. 2.

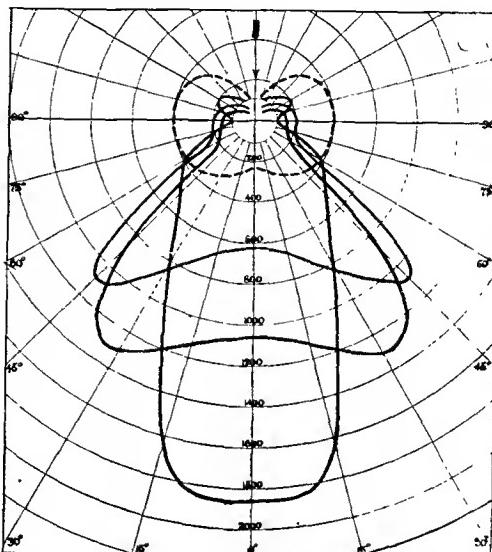


FIG. 2

Opalescent glassware, whilst giving good diffusion, has not such complete control of the light. Incident rays on reaching the opal surface are mostly broken up and scattered more or less equally in all directions. Thus whilst the contour of an opalescent reflector may be varied as much as is desired, it does not appreciably affect its final light distribution curve, which remains of a general character.

Vitreous enamelled reflectors suffer from the same defect, that alteration in contour does not appreciably alter the character of the final light dis-

* For a detailed explanation of light distribution and zone factors refer "The Lighting of Modern Commercial Buildings—Underlying Principles," by Capt. E. Stroud, *Architectural Journal*, 4 January 1922.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

tribution curve, which limits their application in practice for most efficient lighting.

SEMI-INDIRECT LIGHTING.

Semi-indirect lighting units comprise a translucent dish made of opalescent glass, prismatic glass, or alabaster. They send most of the light to the ceiling, from which it is reflected downwards, but a certain percentage passes through the units itself, depending upon the density of the medium.

This method of lighting must of necessity be more wasteful than direct lighting, considered from the point of view of energy, seeing that the ceiling has to be converted into a secondary source. The reflection co-efficient for a good white ceiling is 82 per cent., which immediately creates an absorption independent of that of the unit itself.

In semi-indirect lighting, therefore, it is necessary for its successful application that the ceilings are made as light in colour as possible, also that they are plain surfaces, as free from obstruction as possible.

It is desirable to bear in mind subsequent deterioration of a ceiling with age, which naturally has a bearing on the maintenance of the efficiency of this system.

The system should not, of course, be applied to situations with roof lights, etc., otherwise a very heavy loss will result.

An important point, also, is the relation of the height of a building to the spacing of points with semi-indirect lighting.

As the light is reflected in a diffused manner from the ceiling, and depends upon the latter for its efficiency, it is obvious that the greater the height the lesser will be the quantity of light rays which ultimately reach the working surface.

I submit that the use of a ceiling as a reflector is unscientific and the result unbalanced, for the reason that attention can best be concentrated upon a given object when it is well illuminated and the surroundings are not made to predominate.

The latter point is accentuated in the case of totally indirect lighting, where the source appears as an opaque body.

Semi-indirect lighting came into prominence in the early days of the gas-filled lamp. The latter having a much higher intrinsic brilliancy than the former metal filament lamps, they required greater

diffusion. In many cases this was overcome by the wholesale application of opalescent bowls, but the inefficiency of this method immediately took away the benefits that should otherwise have been derived from the increased candle-power which these lamps made available.

On investigation it will be found that large numbers of semi-indirect lighting installations are being replaced by more efficient means, and in my opinion the solution rests in a return to units of a direct character, but offering a higher degree of diffusion.

Illuminating engineers have been working for some time now towards this ideal, and already several most promising new units have been made available.

It is, however, in such matters that illuminating engineers would welcome a closer co-operation with the architectural profession. We find, in so many cases where theory would indicate a satisfactory procedure, it is made impossible by æsthetic considerations. An example to my mind at the moment is in church lighting. There has been considerable activity of late in raising the standard of lighting in such buildings.

For the efficient treatment of such interiors illuminating engineers find immense advantage in placing their light units in the centre of arches, adopting chain suspension from the apices. By doing this the lighting of the nave and side aisles is practically shadowless. On this procedure, from the architect's point of view, there seem to be two lines of thought. In some cases we are left to our judgment, in others we find ourselves in a hornets' nest. I feel, therefore, that we should greatly benefit by the views of architects on such points.

Before passing on to a few lantern slides showing some practical applications of illuminating engineering, I would just like to mention that the present is an age of specialisation. It is impossible for an architect to be fully conversant with all the latest applications of lighting, nor is it necessary, seeing that any firm engaged in illuminating engineering would be only too happy to place before architects their experience, and assist in the drawing up of their lighting schemes, in most cases without obligation. It places no restrictions upon the architect—actually it might relieve him of considerable anxiety and trouble, in addition to which he has the certainty of good results.

ILLUMINATING ENGINEERING

Discussion

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR

Sir JOHN HERBERT PARSONS, F.R.C.S. (President of the Illuminating Engineering Society): Mr. President, ladies and gentlemen, I have great pleasure in moving a vote of thanks to Mr. Tye for his very illuminating paper. It has been full of good material, and it has been well illustrated. At the same time, much as it gives me pleasure to move this vote of thanks, I feel almost more inclined to move a vote of thanks, on behalf of the Illuminating Engineering Society, to the Royal Institute for devoting an evening to this subject, which is of great importance, not only to the illuminating engineer, but also to the architect.

I feel in a false position on this occasion, for although I am President of the Society of Illuminating Engineers, I am not an illuminating engineer; I am an ophthalmic surgeon, and, as such, I know very little about illuminating engineering, and very little about architecture. But I think perhaps my position enables me to visualise to some extent the attitude of the architect towards illuminating engineering, better than if I were simply an illuminating engineer. Speaking out of the fulness of my ignorance on both subjects, I think the traditions of architecture have been derived principally from the South and East: from Greece and Rome, and later from Italy. They are all countries where there is an excess of light, and the architecture of those countries seems designed to keep out the light. Judging by domestic architecture in England in past centuries, and also on the Continent, the principle of keeping out light seems to have been very admirably followed out, and it is only in comparatively recent times that the provision of light inside dwellings has been fully appreciated; there has been amongst architects, I presume, a new orientation of thought with regard to the problems of light interiors in domestic and other buildings in our climate. The attitude of the architect towards these problems, I take it, is that his subject is applied art, and that that of the illuminating engineer is applied science. There is great diversity of opinion with regard to the relative status of these two attitudes. My opinion is that applied art must also be applied science, and that they will eventually become one; because one of the criteria of the best art is fitness for the purpose for which it is designed. Therefore, there is a much nearer relationship between these two things than is usually felt at the present time.

In this re-orientation of the architects' attitude toward the lighting of building interiors there has arisen also the great new feature of artificial lighting, which has made such strides in recent times. The desirability of the co-operation of architects and illuminating engineers

seems to me to be a point which does not require any proof; it is an absolutely clear and simple thing. I feel that the illuminating engineers have rather pushed the matter into the purview of the architects. But the advantage which is to be obtained is not one-sided; it seems to me that the advantage of co-operation between architects and illuminating engineers would be as great, if not greater, from the point of view of the illuminating engineer. It is possible that if architects took more interest in the lighting fittings of the interiors of buildings, we might be spared some of the monstrosities which are at present to be seen, and we might less frequently find beautifully designed and proportioned buildings spoilt by hideous fittings. The question of lighting buildings seems to me essentially one which can be submitted to experimental investigation before the building is put up. The use of models and experimental rooms, like those which have been erected at the National Physical Laboratory, might possibly be of extreme utility to architects. I think the architect would score enormously if in his designing he would make the lighting part of his scheme in a way he has not always done in the past. Acting, as I did, on the Factory Lighting Committee of the Home Office, I learned much about lighting. One feature which came out was, that in illumination there are two great factors; one general, the other local, illumination. The matter of general illumination particularly is one which affects architects' designs in a very special sense. It is quite feasible that the lighting arrangements for general illumination, if they were designed by the architect in combination with the illuminating engineer, might be made to enhance the beauty of his design, and provide a light which would be satisfactory, and which I should be able to criticise at a later stage as being either hygienic or non-hygienic, as the case might be.

Mr. W. R. RAWLINGS (Past President of the Electrical Contractors' Association) in seconding the Resolution said: Sir John Parsons has spoken on so many of my points that my part in the programme is thereby considerably shortened. I do feel, however, that there is a still closer association wanted between the architect's fittings and the illuminating engineer's. The pictures we have had before us this evening illustrated rather too much of the engineering side of the question, and too little of the architectural. The architect puts up a beautiful building, he designs for the natural source of light with great care, and with beauty, and then he leaves the building for someone to come along, perhaps the electrical contractor or the illuminating engineer, and their only concern with regard to the building is

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

how best to light it. In the early days, I think, the architect used to study carefully the best fittings to suit the building. We have, in London and elsewhere, makers who give special study to the art of providing fittings suitable for a building. Where they so often fail is that the fittings give so little light. "But," they say, "after all, they are beautiful." When the lighting engineer comes along he says he cares nothing for beauty, but only for the science of lighting. What is wanted is a kind of combined brain, or brains, say, the lecturer to-night, Mr. Gaster, and the President of this Institution; and I think that if those gentlemen could work in combination we should have a different aspect in artificial illumination from that which we have to-day. Again, architects to-day have to design buildings to be used with artificial lighting. We have found, since illumination has developed, that improvements have taken place under streets; I think some of the most comfortable corners are now to be found in what used to be cellars under the street pavements, and that has been due entirely to improvements in artificial lighting in conjunction with architecture. Therefore, the architect, of necessity, must consider and reconsider the plans he used to prepare of old, in which the lighting was insufficient for either work or pleasure. I am aware that there are many difficulties in the way, due to antiquity and prejudice. Take the case of the billiard table: I do not think any illuminating engineer has ever succeeded in convincing a billiard player that it is only necessary to illuminate the table and shield the player's eyes from the light; the billiard player must have a shade 20 inches in diameter, it must have an angle which is the same for a gas burner, and it must be 27 inches from the table-cloth, and the lights must be spaced in the same sort of way, best known to the player. Do what you will, nothing will induce the billiard player to use anything but those peculiar green cardboard shades—covered with silk if you like, but they must be cardboard inside. That is typical of many cases where the user wants a particular form of light.

I am in accord with the lecturer when he says he does not agree with the whole of the light being derived from the ceiling; personally, I think it is a mistake. Direct illumination is right and proper, provided always the light is properly screened from the eyes.

It only remains for me to second, as I have much pleasure in doing, the vote of thanks to Mr. Tye for his paper this evening.

Mr. HURST SEAGER [F.] : The title of the paper is a fascinating one—"Illuminating Engineering in Relation to Architecture"—but I fear our lecturer has not lived up to his title. He has dwelt in his paper, in a most interesting way, it is true, only on the engineering aspect; his paper is notable for what he has left out, bearing in mind the title he has chosen. The artistic conception of lighting in reference to archi-

tecture has been omitted, for the only note on the lighting of a building in an artistic way is that in which he refers to the lighting of churches, where he hangs his lamp from the apex of the arch, and he says that on that account they sometimes find themselves in a hornets' nest. May I venture to hope they will be in a hornets' nest every time if they illuminate their churches in that way? What we want to do, as architects, is to work in co-operation with illuminating engineers to produce artistic effects; our requirements being known, we should be able implicitly to trust the illuminating engineer to carry them out.

I was glad to see that a beginning has been made in our Abbey by the use of concealed lighting in the chancel. I hope it will be carried further, for it is the glory of the whole interior we want to reveal by artistic illumination, but it must be illuminated in such a manner that it shall be an excellent example "of that art which concealeth art." Not the slightest proportion of those who visit Westminster see the glories of it, for they never look up. The glory of Westminster Abbey lies not at the floor level, not in the mass of monuments—these have an entirely different interest. It lies far above the level of the eye. We need to illuminate the Abbey in such a way that the eye would be drawn irresistibly upwards.

I do not want the mystery of the building to be destroyed. I would not rob it of that magnificent intermingling of gloom and splendour of hue which can be seen at any time that the sun is shining within it—and it does shine here sometimes! But if the Abbey were illuminated in this way it would be a revelation to Londoners—a joy to all visitors.

I was at Constantinople last year, and, under the charge of a Turkish soldier, spent many days in photographing Santa Sophia; and as I stood there I could not help thinking what a splendid thing it would be if it were lighted, as it should be, by rays of light thrown into the dome. Now, there are many lights on a level with the eye—primitive electric lamps, which only dazzle; and the beauty of the building disappears when these are lighted. The interior cannot be well seen in the daytime, because there are so many windows of clear glass in all directions; but with the possibility of lighting it by electricity all the glories of that beautiful building would be revealed. And so it might be in the interior of St. Paul's.

We know that light is thrown off from any illuminant equally in all directions, and if we had in the centre of the dome of St. Paul's a large shielded light, the surface of the dome would be evenly illuminated and a beautiful effect created.

Let me now take a sudden drop from the consideration of the lighting of these poetic examples down to shop windows. In all our principal streets one sees the great advance which has been made in the art of dress-

ILLUMINATING ENGINEERING

ing shop windows, and here the electrical engineer has made them things of beauty at night. But he has omitted to notice that the masked lights, which our lecturer referred to, are seen by reflection in the glass partition which divides the shop from the window, in many cases quite destroying the effect he wished to gain, for this reflecting light is irritating. It could easily be made to disappear by slightly inclining the glass in the screen, or, better perhaps, by lowering a curtain over the glass at night. Daylight conditions need to be brought into harmony with the artificial lighting. At night the spectator stands in a comparatively dark space, and is looking into the brilliantly lighted window, but in the daytime these shop windows, which are so perfect at night, are, if dark goods are displayed, nothing but mirrors advertising often the details of the windows on the opposite side of the road. That could be altered by taking care that in the daytime also there should be a flood of light—natural light—sent into the back of the window by reflecting glass, or other means, so that in the daytime, as at night, the interior of the window should be a more brilliantly lighted space than that in which the spectator stands.

I must not enter in detail into the lighting of picture galleries, a subject which I have studied for many years : I hope a special evening will be devoted to it at some other time. But one thing I must mention, for it is urgent and might be repeated at any moment. The lighting engineer has been lately at work in our National Portrait Gallery. In one narrow gallery in which the pictures cannot be seen at all during the day electric lighting has been installed. Here was a glorious opportunity to make use of the electric light in such a way that the beauty of the pictures could be realised. But the engineer put along this narrow gallery eight such lamps as you have in this room, sending the flood of light down on the spectator. It is the most elementary principle in regard to gallery lighting that the spectator shall be in the shade and the lights shall be shielded. But here the spectator is brilliantly lighted and strongly reflected in every picture, and the whole of the lights are reflected over and over again in the most maddening way. It makes one almost despair of any advance being made when we find, after the scientific basis has been laid down, and the results of scientific experiments published, that illuminating engineers should have gone to this gallery and produced such a lamentable result.

I submit that what is required is that in any one branch of the work all workers should be brought into touch ; at present, in this case, we have illuminating engineers studying the question and publishing the result in their journal, which the architects never see. The architects study it from their point of view and publish it in their journals, and the illuminating engineers never see it. We have also directors of museums

studying the question of lighting and publishing the results in their journal—which none of us see. All views thus expressed on any one subject should be noted, and some publication should give a full index to these various contributions, not only in the journals mentioned, but through all sources, so that each of us may reap the advantage of the studies made by all workers, and thus unitedly progress towards the goal we wish to reach.

Mr. L. GASTER (Hon. Secretary, Illuminating Engineering Society) : At this late hour, sir, I must not detain you with many remarks, but I cannot help voicing the opinion of members of our Society, from the President downwards, that it is a great pleasure to have the opportunity of coming before this Institute and laying before you the plea that we like architects to come and help us.

When the Illuminating Engineers' Society was formed, in 1909, our constitution allowed equal representation on the Council to allied bodies, and there is one vacancy on our Council, and that is for an architect. I have written to the Royal Institute asking them to honour us by electing a representative for our Council, as the Electrical Engineers, the Gas Engineers, and the Ophthalmological Society have done. That invitation was not accepted on behalf of this Institute : they said they would send a representative when there was a subject which interested them. To-night that matter is no longer left in doubt, and we hope the vacant chair on the Council will be filled by your worthy President. It is only by the exchange of views that we can learn what is wanted, and, equally important, what is not wanted. What is required is a proper exchange of views between the user, the producer, the architect, and the ophthalmologist. To-night we are privileged to be here with you, and I am glad to be able to congratulate Mr. Tye on his excellent paper. I am not too young to teach, nor too old to learn, and I have come here to say one or two things which I should like to bring to your notice.

In 1910 it was my privilege to write an article on the lighting of drapers' shop windows. I was abused by every draper in the country, who said if I were a window-dresser I would know better. Any fool can sell what a person wants ; the cleverness in salesmanship is in selling what a person does not want. What you want is to attract the probable buyer to the window. During the war there were air-raids, and the police said "No lights can be allowed." The reply was, "But I must carry on my business." "You can do it by keeping your light inside your window." Light the goods, do not have the light so that it plays on the eyes. Architects have paid great attention to shop windows in France. We have learned what the defects are, and it will be the object of the Illuminating Engineering Society to improve the lighting as time goes on. My next point is a very important one. In the olden times we looked upon

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

light as a desirable thing *per se*. But light is for the purpose of making other things visible.] If you go to a picture gallery, it is the picture you want lighted, you do not want to see the light, nor its reflection. We want the architect to tell us exactly what it is he wishes to be made visible, then we will design the fittings accordingly ; it is for you to co-operate with us in providing the right kind of light.

The PRESIDENT : I do not propose to add anything to this discussion, except this : that we architects are entirely favourable to the instruction which has been given to-night, and we are very thankful for it. If it ever turns out, in the conferences between architects, illuminating engineers and ophthalmologists that we do not appear to be entirely at one, it is partly because the architect realises that one of the functions of light is to produce shadow ; that was once hinted at in the lecturer's most able address. It will be wise for us to find out, under the advice of our scientific helpers, how we can get the effective shade without loss of efficiency in lighting. And it is wise for us to know—though sometimes we are extravagant in the matter of light—it is wise for us to know what we are losing and how we lose it. At present we deal with light as if it were water ; we do not realise the cost of it. Economy in fire and lighting is a subject on which the architect has much to learn, and it is because of that I welcome the lecture we have had to-night. It has furnished me with a good deal of knowledge I had not before, and I have pleasure in putting to you the vote of thanks.

Carried by acclamation.

Mr. TYE (in reply) : I have to thank you for your kind reception of my paper. With regard to reflections from shop windows, this certainly is an objection, but in many cases it can be overcome by a light muslin curtain placed between the lighting units and the glass. In another case, light etched glass itself can be used, with the etching on the side nearest the plate-glass window ; this has minimised the objection to some extent.

In the case of the National Portrait Gallery, I do not know whether illuminating engineers as a body have been unfairly dealt with in Mr. Seager's remarks, but it may easily be that illuminating engineers were not consulted at all. The state of things is that anyone, from the plumber upwards, is entitled to buy Osram lamps and instal them and to call himself an electrical contractor ; and it is much the same with illuminating engineering. The latter is a comparatively new subject, and because of that it probably has not yet that wide application that you might associate with electrical contracting.

Mr. P. J. WALDRAM, Licentiate Member of Council of The Illuminating Engineering Society, has sent the following communication :

May it be permitted to one who has for many years been an ardent student of illumination, in all its aspects, to express regret at the extremely narrow view which the paper takes of that wide and interesting subject ; which is, to architects especially, also an extremely important one.

It is, I suggest, most unfortunate that the author, instead of dealing with illumination, should have dealt exclusively with certain methods of obtaining it. Still more unfortunate is it that these methods should have been illustrated, I think exclusively, by the practice of one firm ; as if one would illustrate the relation of wood-carving to architecture by describing the chisels used by one eminent craftsman.

The architect, as the responsible master-craftsman, is not so much concerned with tools, theoretical or practical, as with the result. He is concerned with illumination in its utilitarian, hygienic and æsthetic aspects. The minutiae of lighting he can leave to those whom he employs to give him such illumination as he specifies. He should, of course, be able to specify the intensity in foot-candles which he requires, and to measure that intensity. He is also concerned with its colour, direct and reflected, with its contrasts no less than with its uniformity, with the depth of its shadows, its freedom from glare and its effect upon that capricious and apparently unreasonable combination, the human eye and mind. He is concerned with its broad utilitarian aspects of first cost and running cost, and its suitability for the varying requirements of human industry ; and he must not be unmindful of its hygienic aspect, glare or eye-strain being to him the result of bad craftsmanship, which he must not and will not have at any price.

Nor are his interests confined merely to artificial light, any more than they are restricted to any one form, such as filament or gas-filled lamps. Gas is a worthy rival of electricity, and rapid advances are being made in the use of daylight lamps, the light from which should possess all the main physical characteristics of daylight, and not merely the same spectrum, as was stated in explanation of one of the slides. We know of their adoption in drapers' shops and manufacturers' test rooms, but they are also coming into use elsewhere, in art schools, for instance. They may prove to involve less eye-strain, and become the standard artificial illuminant. Daylight itself, with the photometry of which I have been more particularly associated, is to the architect really a form of illumination, his windows being the lamps. He needs not only data of the hours of sunlight to be expected to enter any window, but of the light from that window on dull or wet days, and over or beside obstructions. The photometer will tell him what he has got when the buildings are completed. It will not tell him what he is going to get.

ILLUMINATING ENGINEERING

It may be said that in the foregoing there is sufficient to occupy several evenings, and that the author was wise to limit his scope. Possibly that is so ; but on the other hand, a Paper that might convey the impression that the art and science of illumination—for it is both—can consist of a few elementary formulæ and some tools, means even more than a lost opportunity of securing the sympathetic co-operation of architects ; it gives an unfair start to an utterly false impression.

Much data on the subjects which I have indicated is of comparatively recent growth—much more awaits research ; and it is hoped that architects will in increasing numbers avail themselves of the labours of members of the Illuminating Engineering Society and will assist in those labours. That Society is by no means composed entirely of engineers : some of its members are scientists or physicists ; some, like its president, are ophthalmic surgeons ; others are architects. The Society studies broad results and the best means of obtaining them. It collates information from all over the world. It welcomes new methods and tools, but it also criticises them very freely.

In many ways it might assist architects by indicating the extent of knowledge which exists at any time with respect to any given problem, such as daylight lamps, the natural and artificial lighting of hospitals, cinemas, churches, factories, etc., in order that the architect may ascertain whether reliable data exist which he can use, or, if he must rely wholly on his own judgment, whether any boundaries have been set to the problem, so that his labour may be minimised.

The illuminating engineer can help him, but that is all. If he tries to abrogate to himself the position of the architect, the latter will inevitably fall back upon rule of thumb and common sense, and do the best he can by himself. And it will not be a very bad best either ; for by the time that a man of trained observation is satisfied (and there will be no final payment until he is) there will not be very much to grumble at.

His methods of predetermining results may seem rather crude and elementary to the engineer, and he may make mistakes ; but the very crudity and simplicity of his mental deductions will probably protect him from any very glaring mistakes. The very slowness of trial and error methods may be his salvation, whereas the rapidity of more scientific methods applied to a new and partially explored subject may easily invite disaster. Unfortunately, when an illuminating engineer makes a mistake, it is almost bound to be a "glaring" one, in some directions at least, and generally in all.

Scientific methods of calculation must necessarily depend for their accuracy upon accurate data, and wise illuminating engineers recognise, of course, that we are greatly in need of more and better data, if only to correct figures which were hurried prematurely into print in the early days, and have been copied and quoted wholesale.

Take, for example, the familiar American table of artificial illuminations which, as the paper states, appears in the catalogues, though not, I believe, in the practice of many firms. I have often wondered whatever could have induced its compiler to recommend so many values which are so greatly in excess of what people need, or even of what they could endure. Too much artificial illumination can be far worse than too little, for our eyes are only accustomed to take in very moderate intensities of light. The illuminations of daylight are enormous, and they vary enormously, but the iris diaphragm of the eye stops them all down to a small amount, probably two or three foot-candles. Unfortunately, the iris diaphragm does not work properly under artificial light, and we only need high illuminations such as 4 to 10 foot-candles when viewing substances or fabrics which reflect only a small proportion of the light falling on them—dark cloths, for instance. Objects are not seen by the light thrown on to them, but by that which they reflect back into the eye.

If the 5 foot-candles recommended were adopted in elementary school classrooms, where slightly glazed paper was in use, the school medical officer would have his hands full.

The Committee of the Society of Illuminating Engineers, which investigated school lighting very exhaustively some years ago, restricted its recommendations to a minimum of 2 foot-candles, and even in America a minimum of $2\frac{1}{2}$ foot-candles is now suggested.

General offices with the 5 foot-candles recommended may exist, but I have not yet discovered them, whereas rooms with half that quantity seem excellent. Ask a draughtsman to work on tracing cloth under an illumination of 5 to 10 foot-candles as recommended ; he will immediately tie a handkerchief round the bulb or rig up a translucent paper screen.

The most recent recommendations of the Home Office Committee on Factory Lighting are 3 foot-candles for fine work and 5 foot-candles for very fine work. The list in the paper recommends 5 to 10 for fine work.

I would venture to suggest that before embodying in a specification any value from this table an architect should compare it with some installation of known intensity ; or, better still, find one which pleases him and measure it with his own photometer.

Architects and scientists are both aiming at the same goal—viz., illumination which shall satisfy the human eye. In this the trained judgment of architects should be invaluable, especially if they would acquire the habit of using photometers for recording the intensities which satisfy their trained judgment, recognising and noting contrasting surroundings which might tend to affect or prejudice the result. But before they can do this there must be cheaper and simpler photometers.

The R.I.B.A. War Memorial

UNVEILING CEREMONY BY LORD CRAWFORD.

On Monday the 20th, at 3 p.m., the Earl of Crawford and Balcarres [Hon. Fellow] unveiled the War Memorial Tablet, containing the names of 232 members and students of the Institute who laid down their lives during the Great War. The memorial, a bronze tablet on which are inscribed the names of the fallen soldiers, is attached to the wall to the right of the entrance to the Institute galleries.

Lord Crawford was received by the President, Mr. Paul Waterhouse, the Past-President, Mr. John W. Simpson (who was the Assessor in the competition for the War Memorial), the Vice-Presidents and the Hon. Secretary of the Institute.

Mr. John W. Simpson (the Assessor of the Competition) presented to Lord Crawford Sir Trenwith Wills, the designer of the memorial, who was successful in the competition restricted to members of the Institute who served in the war.

Lord CRAWFORD in his address said :—

GENTLEMEN,—We commemorate our brother-architects whose paths had seemed to lie in peace, whose work was destined to be wrought in harmony until they heard the great rending cry—

“ Quiet, untroubled soul, awake, awake !
Arm, fight and conquer, for fair England’s sake !”

Hearing, they answered ; and, answering, they gave their lives.

Two hundred and thirty Fellows, Associates and Students of the Royal Institute were killed. Here is the list of their honoured names—no mere census-sheet, but a Roll of Honour which records achievement—the same act of sacrifice accomplished by every one of them, but each in its different way, and each with the grandeur of personality in its suffering and abnegation.

On these occasions we are perhaps too liable to assess the equilibrium of sorrow, too ready to dwell upon the pathos of young life abruptly cut short. What secrets lie unrevealed in these tragic columns, what hopes and aspirations unfulfilled, alas ! what poignant grief in the circles of family and home. Gone they are ; dead we must reckon them to be ; but though dead we must not look upon them as absent since they still speak to those who survive, and will ever recall that without their agency all that we value as individuals, all that is most precious to

our citizenship, all indeed which gives us the freedom of ourselves and of our country, would have been overwhelmed in disaster.

So let us take comfort, since glory is never without its measure of happiness. And who shall say that they missed their chosen career ? They were indeed great architects who built up the stalwart bulwarks of our Empire’s defence with the very body of their death. Their creative genius has realised a fuller expression in that their earthly ideals have been translated into terms of spiritual reality, whose souls and sacrifices form even now a part of the great Temple not made with hands.

Nevertheless our mourning should not be concealed. We shall never know the real extent of our loss ; but if, as we hope, there are to-day the stirrings of a renaissance in the noblest of arts, if with the coming generation we are to witness the fruits of long and patient enterprise, of growing and more discerning appreciation, of the improved organisation and equipment on which such earnest effort is being expended—we must weep for much young talent that has been dispersed, lamenting that so many who were born to observe order and comeliness should have saved them for us at the cost of their lives.

Let us be thankful that so many of their comrades were spared. One thousand civilians issued from the peaceable calling of the architectural world, ready to die like the rest of them as soldiers ; these are with us to-day. Their names do not appear on the altar stone of the Royal Institute. Upon them must fall the burden of carrying on the traditions of British Art, of maintaining the high standard of public spirit and duty : above all they will hand on to their successors the names of those whose hard lot they were ready to share. They will honour those who died, those for whom the thirst for Truth and Beauty (the artist’s ceaseless quest) must at length have found its satisfaction at the very source of Beauty and Truth, where Eternity affirms the conception of an hour !

Four long years have now passed since upon the high and perilous peaks of victory, our Brothers laid the foundations of peace. We have still to erect that vast structure through Toil and Tempest, and through Time. With undiminished faithfulness,

THE R.I.B.A. WAR MEMORIAL

with hearts which no tribulation can wear down, and which no discouragement shall turn aside, let us go forward and build.

To their victorious memory I have the honour with deep reverence to unveil this memorial.

After the tablet had been unveiled. The Rector of St. George's, Hanover Square (the Rev. Prebendary F. N. Thicknesse) read the dedication prayers.

The PRESIDENT, in moving a vote of thanks to Lord Crawford, said :—

The claim that the poets have upon mankind is twofold—represents a double debt. First—that they seize, and render into words, thoughts that would otherwise go unexpressed ; and, further, that they crystallise as thoughts vague aspirations and unformed regrets or shapeless, unsubstantial wonderings, thus—by creative contact with ourselves—making a mental treasure-house of what, unhelped by them, were chaos of the mind.

Lord Crawford, in his words to us to-day, has been *our* poet. He has framed in speech—beautiful speech—many unspoken thoughts which, even if spoken by us, certainly could not have reached *his* level of utterance.

Nay more. As a true poet he has left thoughts rising in our hearts—uplifting thoughts—which, if they are our own, are none the less born of the inspiration of his words.

In thanking him for this we thank him also in that this bronze (itself a message bearer) will to the eyes and memories of those who have been here with us this afternoon, speak, when they look on it from day to day, not merely with the voice of reverent and ever affectionate homage to the Dead, but also with an echo of the words spoken so helpfully by him to-day.

Lord Crawford—in the name of architects who mourn the loss of comrades, brothers, sons : and in the name of parents and of those, whoever they may be, who standing here see on this panel the name of one of those who

“ added love to love by severing ”

In Love’s own name some dearest tie of love,” I thank you ; and the thanks spring from the heart.

The PRESIDENT also expressed the thanks of the Institute to Prebendary Thicknesse.

Mr. ARTHUR KEEN, in seconding the vote of thanks, said :—

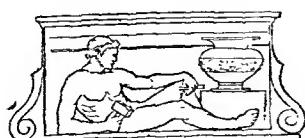
Mr. Waterhouse has expressed himself so happily in speaking of our indebtedness to Canon Thicknesse and Lord Crawford that little remains to be added by me. There is a sense of fitness in Canon Thicknesse dedicating our memorial, for his brother was one of our members and one whom we valued very highly.

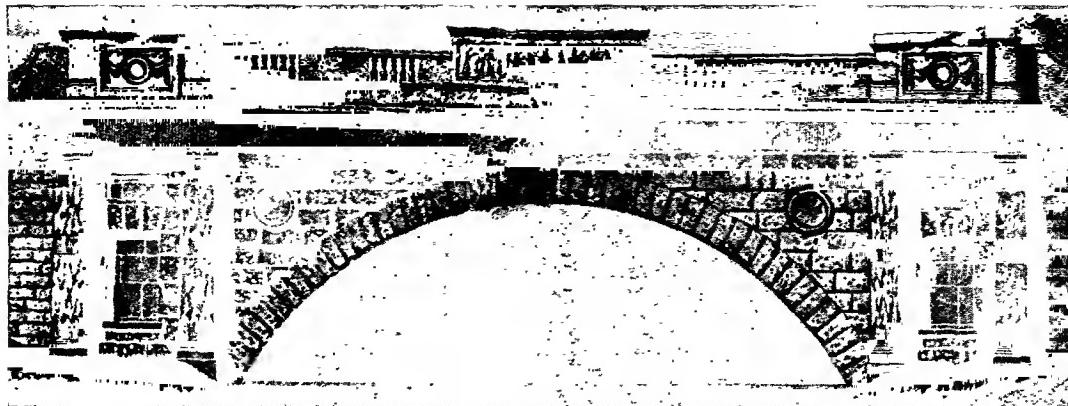
Lord Crawford has at all times been most willing, and ready, to help us in any way that lay in his power : most ready to prove his interest in our affairs by associating himself personally with our undertakings. Not the least of his services has been rendered by him this afternoon in taking part in our effort to acknowledge the debt that we owe, and can never pay, to the men whose names appear on this tablet. If I judge him rightly, he wants no formal thanks for it : he is one of ourselves ; the men who are gone were his fellow members ; he shares in the sense of loss, the feeling of sorrow that moves us all, and he enjoys with us all the security from danger, the freedom won for us all by the efforts and the sacrifice of these men and many, many another like them—so many indeed that one can hardly bear to think that sacrifice and loss and sorrow should be so widespread.

We could think of no one having sincerer sympathy with us than Lord Crawford to perform this service for us, and we are indebted to him for doing it. I endorse all that the President has said about him and I ask you to join me in that endorsement.

Amongst those present were :—

Messrs. A. W. S. Cross, C. H. Heathcote, H. D. Searles-Wood (Vice-Presidents) ; Messrs. R. J. Allison [F.], C. M. Armstrong [F.], W. E. A. Brown [F.], A. Bullock [A.], Max Clarke [F.], Heaton Comyn [F.], W. Vernon Crompton [F.], Horace Cubitt [A.], T. Lawrence Dale [F.], T. Raffles Davison [Hon. Associate], H. P. Burke Downing [F.], E. H. M. Ebbs [A.], J. Alfred Gotch [F.], W. Curtis Green [F.], L. A. Hayes [A.], E. Stanley Hall [F.], W. J. H. Leverton [Licentiate], Henry Lovegrove [A.], A. G. R. Mackenzie [F.], Alexander N. Paterson [F.], W. A. Pite [F.], W. T. Plume [Hon. Associate], Halsey Ricardo [F.], W. Gillbee Scott [F.], Edward Warren [F.], W. E. Watson [F.], Frank Woodward [A.], etc.





ORIGINAL DRAWING OF BRIDGE BY ROBERT ADAM, FOUND AT OSTERLEY

The Work of Robert and James Adam*

By STANLEY C. RAMSEY [F.]

AFTER a perusal of these sumptuous volumes one is left with the feeling that there is nothing more to be said about the Adam Brothers. Mr. Bolton has dealt so fully with his subject that we feel we know everything there is to be known about the Adams, their lives, the lives of their clients, and even, in some cases, of their clients' friends. Without in any way attempting to depreciate Mr. Bolton's magnificent achievement it might be gently suggested that this exhaustive method of treating his subject has, in certain cases, carried him a little too far. To give an instance, it was perhaps a little unnecessary because Robert Adam once designed a house for Mrs. Fitzherbert at Brighton, and because Mrs. Fitzherbert afterwards lived at Marble Hill, Twickenham, which was built in 1723, to give a history of this building. But, apart from this little grumble, there can be nothing but praise for the production, and Mr. Bolton and his publishers are to be sincerely congratulated on the result of their efforts.

Robert Adam occupies a unique position in the history of British Architects, he was probably, all things considered, the most original of all our great builders, at once one of the most satisfying and disappointing of artists.

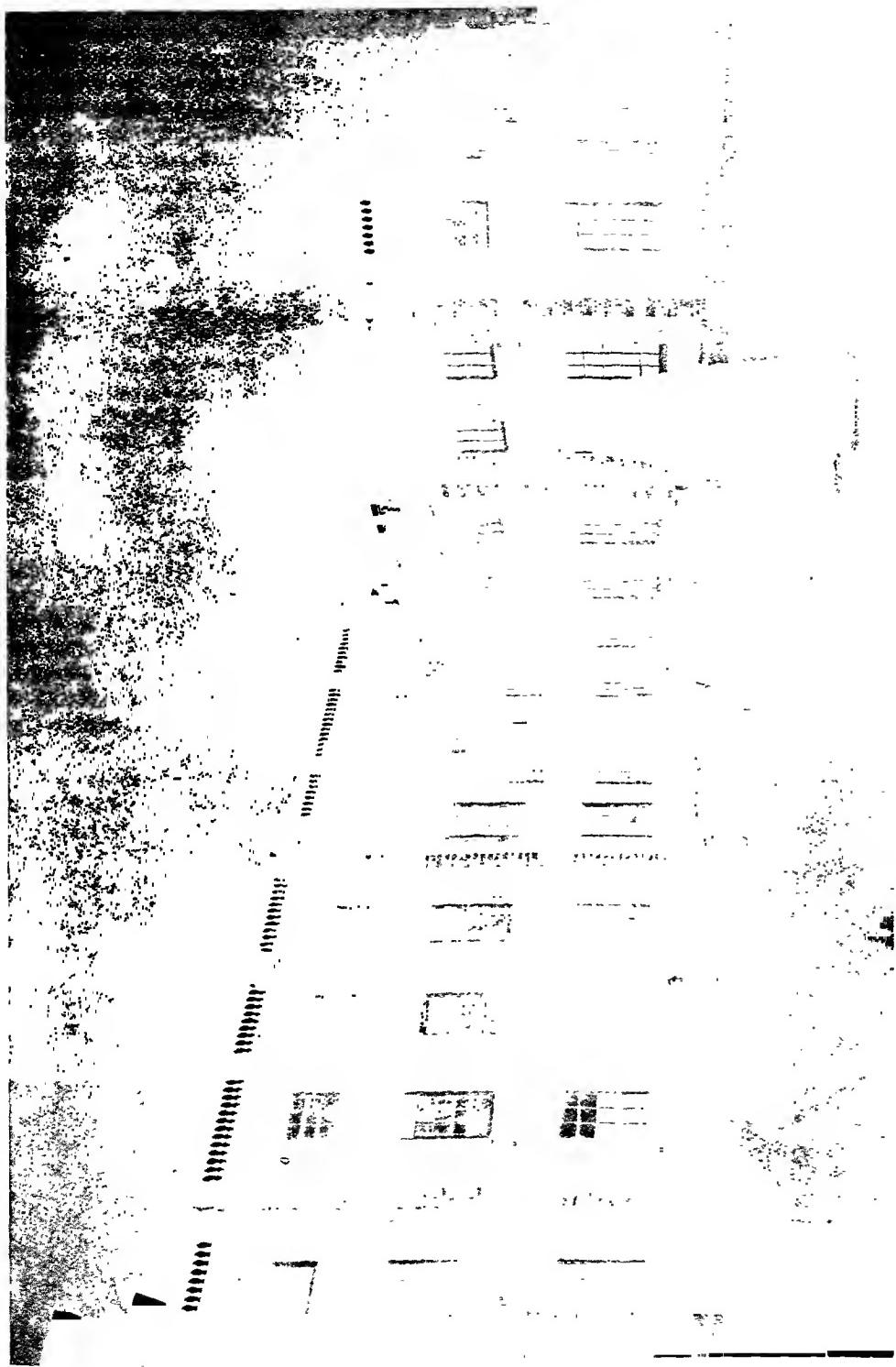
Mr. Bolton tells us that it was one of the minor tragedies of Robert Adam's life that he never erected a great building, but this frustration of his ambitions

may well have been a blessing in disguise. For Robert Adam was essentially a domestic architect, he was at his happiest in the setting of the stage (in that series of wonderful and beautiful houses which he built) for the brilliant life of the late 18th century. The words "An Adam House," come trippingly from the lips and so aptly describe the peculiar impress Adam gave to his work, that we use the personal description as regards his houses, as distinctive from the domestic work of all other men. We do not speak of a "Wren House," or an "Inigo Jones House" in the same sense; we rather use the words, a "house by Inigo Jones," or a "house by Sir Christopher Wren," and this instinctive difference in wording is not without significance. Possibly the very qualities that made Adam's work so good in his domestic essays, mitigated against his chances of success with more ambitious projects. He was probably at his best in his smaller houses, in some detail such as the ceiling at No. 3 Adelphi, or in some door or fireplace, which he probably himself regarded as of very second-rate importance. In some of these slighter works he seems to embody the very spirit of perfection—there is not a redundant moulding in the whole composition, not a line that can be added or taken away.

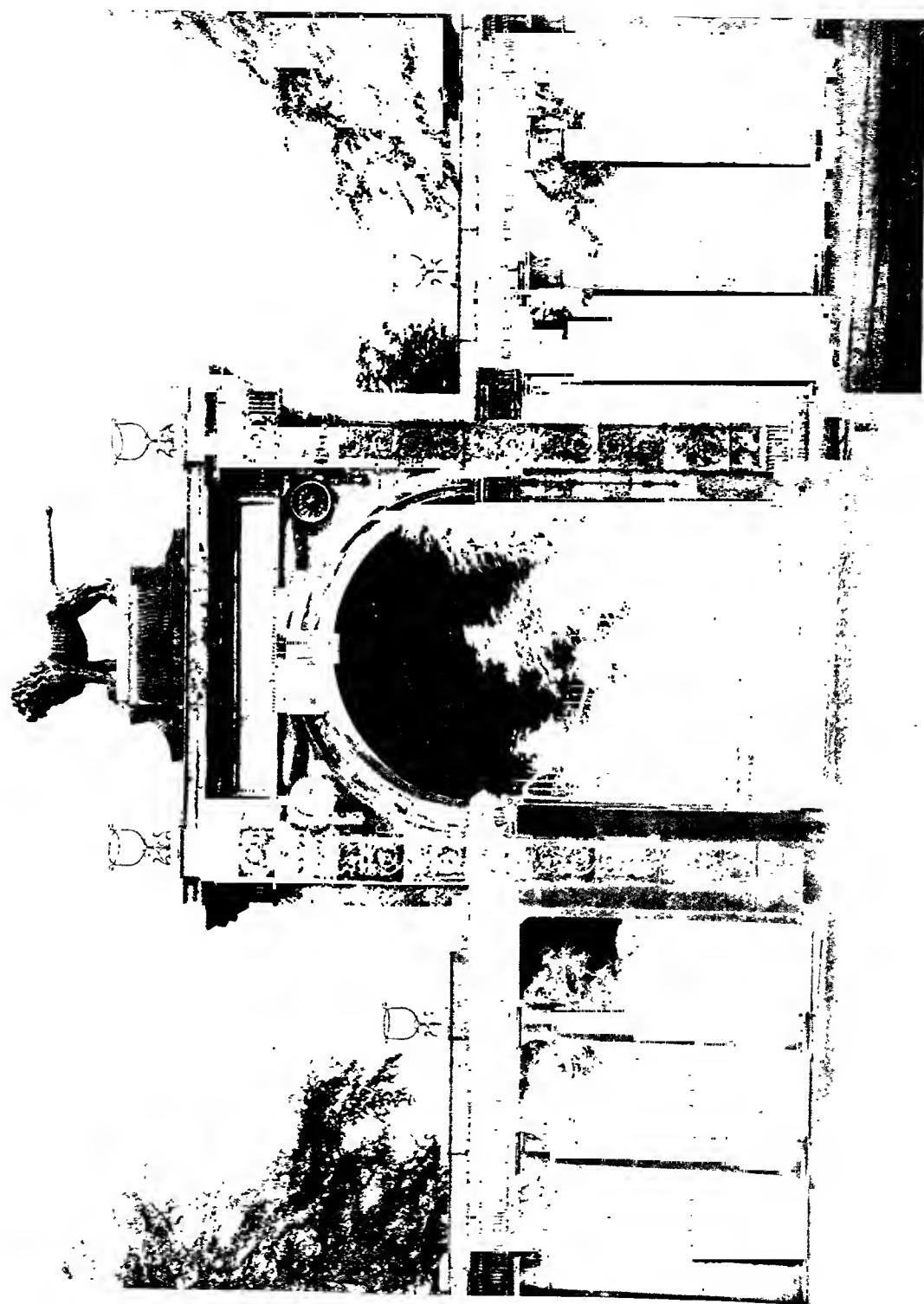
In some of his earlier designs he is inclined to be a little archaeological, and in his later work to be rather too impressive—at times he almost wearies us with so much brilliancy. We become tired of those contrasting surfaces of plain walls and elaborated ceilings, in which every inch is covered with moulded plasterwork, of those continuous arabesques, which cover pilaster after pilaster, and we are inclined at such moments to believe that Adam

* *The Architecture of Robert and James Adam (1758-1794).* By Arthur T. Bolton, F.S.A., F.R.I.B.A., Curator of the Sir John Soane Museum. 2 Vols. [Published at the offices of Country Life]

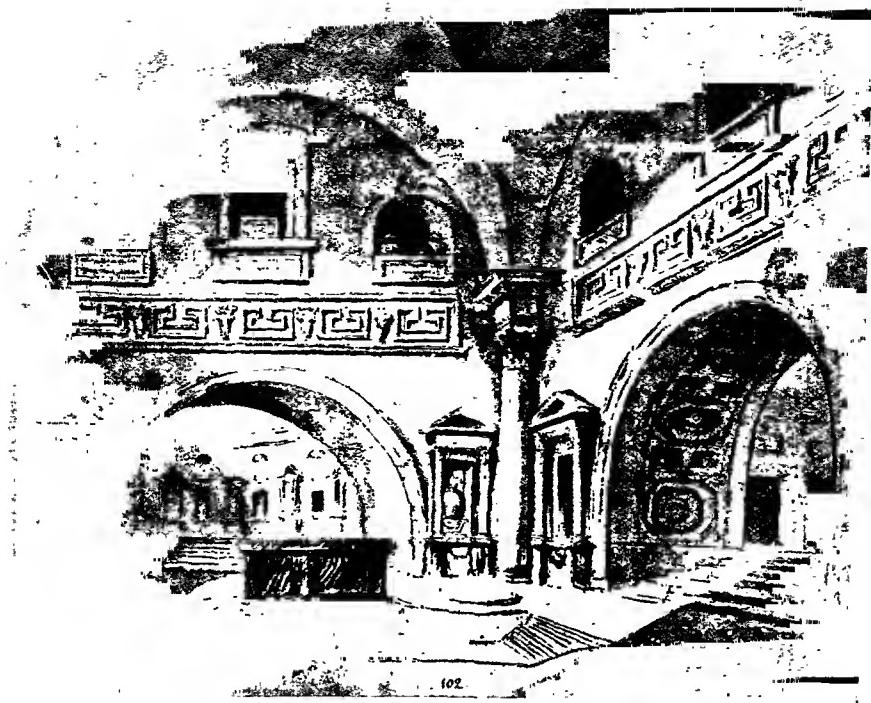
** The Editor desires to express his grateful acknowledgments to the Proprietors of *Country Life* for permission to use the illustrations in the present article.



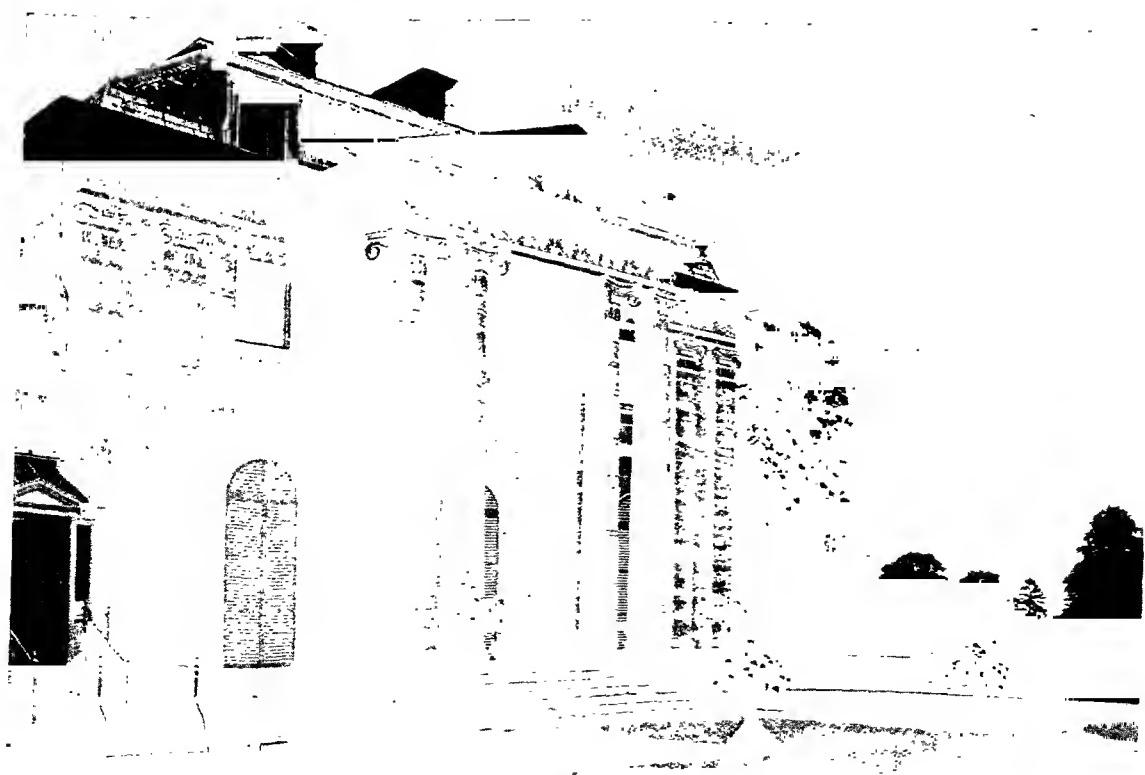
NEWBY HALL : THE ENTRANCE FRONT. THE MAIN BUILDING BY WREN, WITH ADAM ADDITIONS AND PORCH



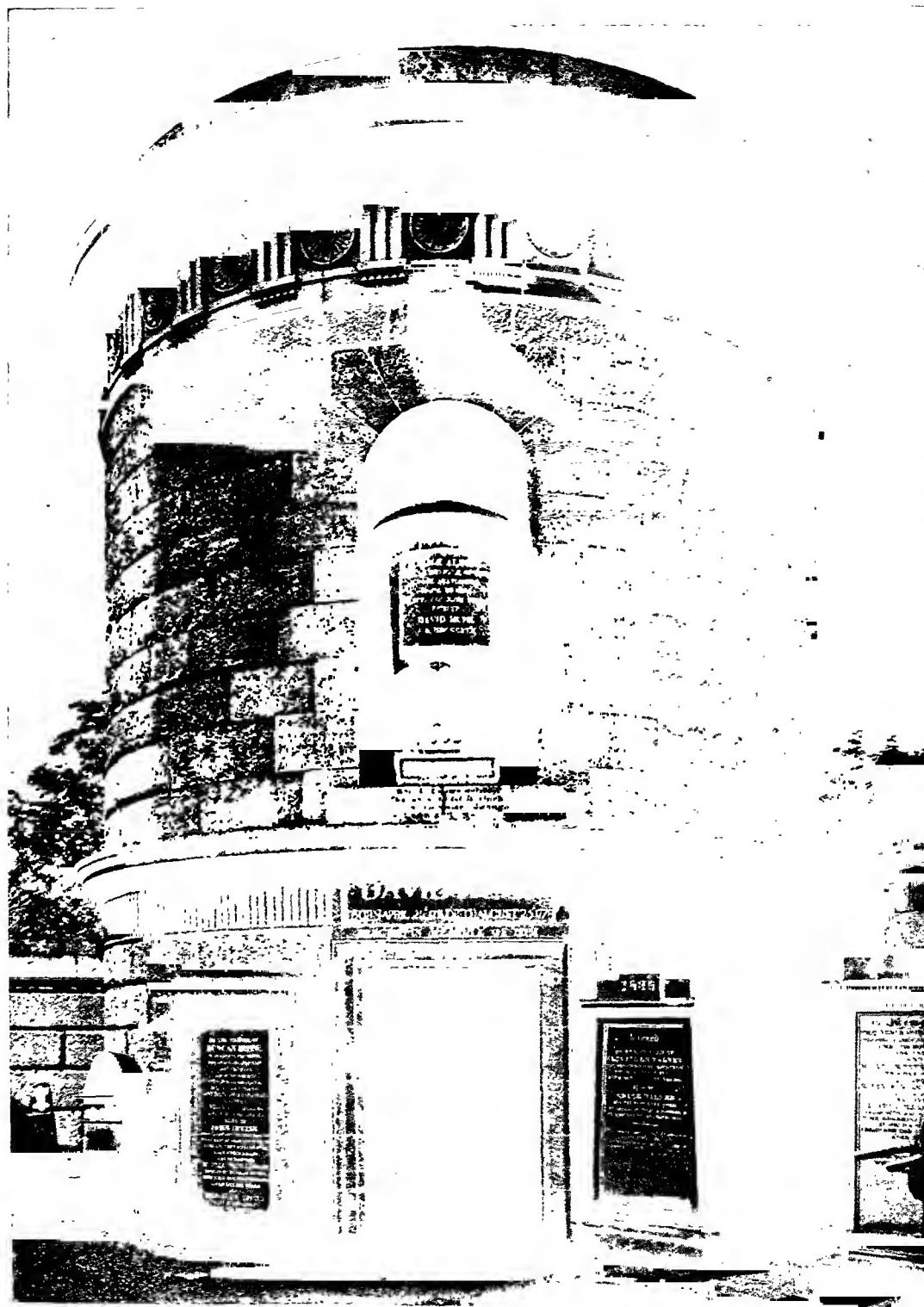
SYON HOUSE : THE ENTRANCE GATEWAY AND SCREEN



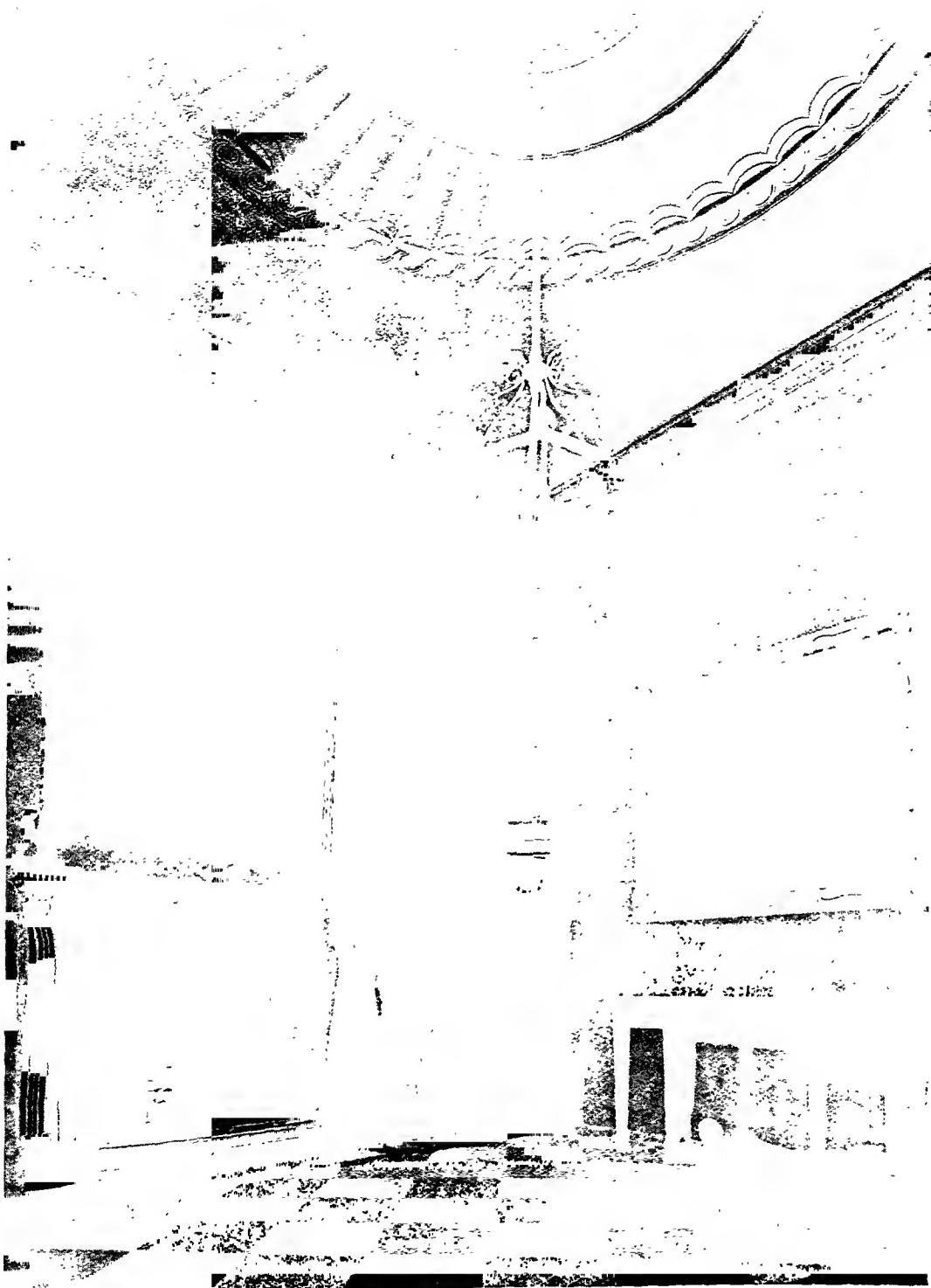
ORIGINAL SKETCH DESIGN BY ROBERT ADAM



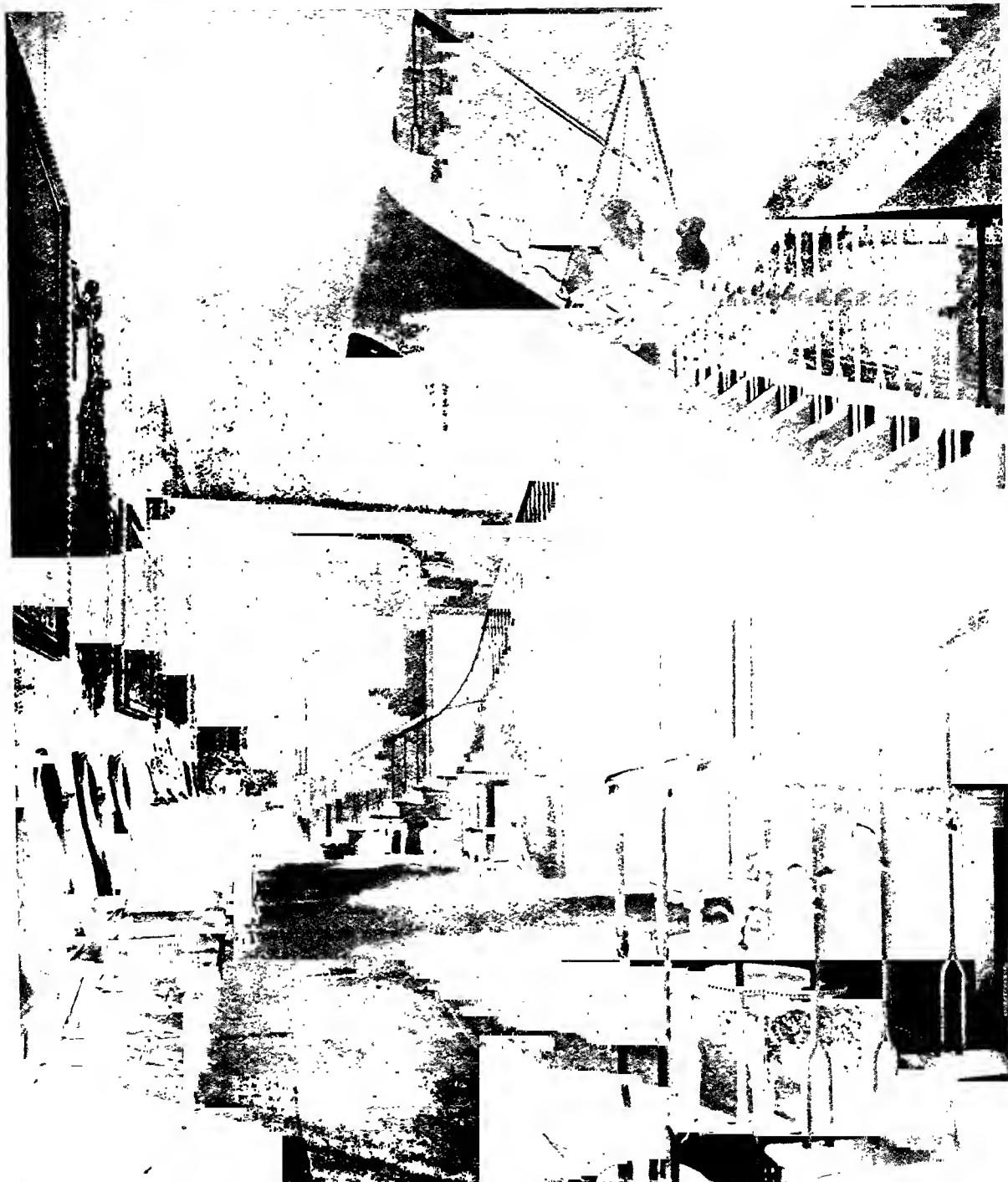
BRASTED : THE PORTICO ON THE GARDEN FRONT. ROOF ALTERED



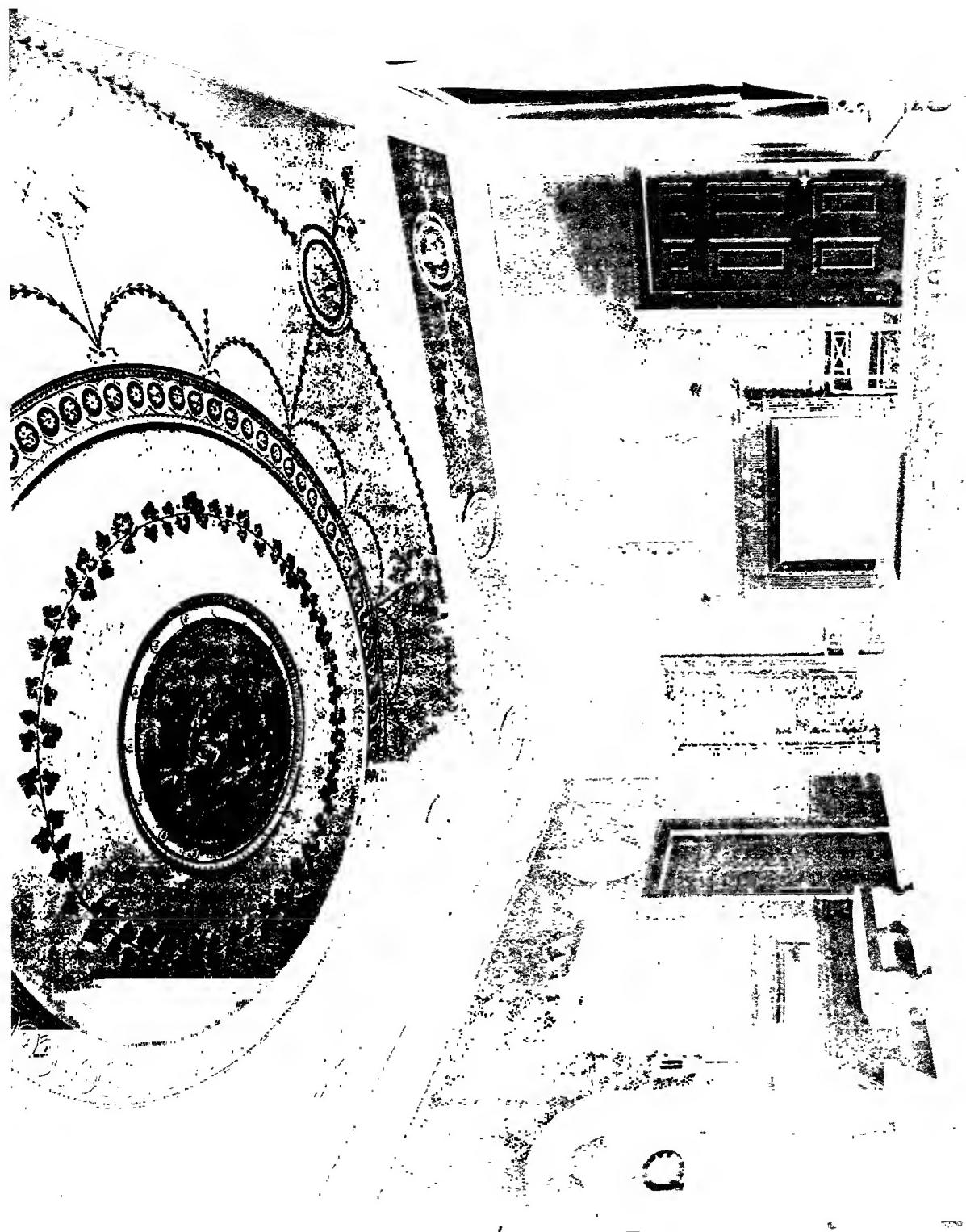
DAVID HUME'S TOMB



CHANDOS HOUSE : THE HALL



MELLERSTAIN : THE STAIRCASE HALL



KENWOOD, HAMPSTEAD : THE ENTRANCE HALL

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

—as his detracting critics would say—was nothing more than a mere decorator—then the next minute we have turned another page, and a pure gem of architectural beauty is disclosed matchless, flawless, incomparable ! When all his great country mansions have been forgotten, when all his wonderful “ French ” furniture has passed into the museums, we shall still come across some humble and forgotten fragment of his work in some mean street or quiet country town, which in its serene and triumphant beauty shall still proclaim the spirit of the master.

Of Adam's public buildings, we have only the Register House, Edinburgh, and some fragment of the University in the same city, by which to judge him. The Register House is, when all allowances have been made, somewhat of a disappointment. It is, for all its pretensions, with its irritating little turrets, too domestic in character for its purpose ; it conveys the effect of a country mansion trying to pass itself off as a building of institutional and civic importance. The entrance to the University is finer in scale and conception, and if Adam had had the opportunity of completing this scheme he might have given us a public building worthy to rank with the best work of say, either Chambers or Gandon. But this was not to be, and we can only judge Adam from his executed works.

Mr. Bolton claims that his hero's masterpiece was the interior of Syon House, Twickenham. Certainly a great performance, but these impressive suites of rooms with their magnificent decoration, free from the brilliant trivialities which detracted from so much of his important work, are still a little cold and inhuman—they have neither the great scale of a French or Italian Palace, nor the charming intimacy of the best domestic work in this country. Adam's work at Syon House is, to use a detestable word, much in vogue at present, “ scholarly.”

One of the most interesting of the houses illustrated is that of Newby Hall, which affords an example of a house by Sir Christopher Wren with additions by Robert Adam. The result is better than might have been anticipated by the admirers of either architect. Wren's building simple and sane, the detail a little slurred and slovenly, very English in its breadth and dignity, is enhanced and set off by the later architects' no less English, but more refined additions. The work of each acts as an admirable foil and contrast to the other's, and the result is extremely interesting to the critic.

Robert Adam, like his contemporaries, came under the influence of the romantic movement of the late eighteenth century, and made various essays in what he was pleased to term “ the Castle Style.” Culzean, illustrated on p. 268, volume 2, is an amusing example of the mixture of classic interiors with a pseudo-gothic exterior.

Mr. Bolton speaks rather slightingly of Adam's disciples, whom he refers to as “ Imitators ”—perhaps as a result of loving jealously on behalf of the reputation of the master. But it is probably only when we realise Robert Adam as the inspirer and founder of a great new school of architecture that we appreciate him at his highest. In both this country and America, Robert Adam was the greatest influence that permeated the domestic architecture of the latter part of the eighteenth century. There is scarcely a town or village throughout the length and breadth of England that does not contain buildings reflecting his influence, and he might with reason be hailed as the Father of American Domestic Architecture. For the “ Colonial ” work of our cousins across the Atlantic is but the translated edition of Adam's work in England.

The reputation of many great artists, including Michael Angelo, has suffered sadly by the follies and incompetencies of their followers—“ imitators ” in the worst sense—but the memory of Robert Adam is enshrined in the works of these English and American Buildings, and if none of the authors of these works attained the eminence or distinction of their leader, they, nevertheless, produced work of the first importance, and have every claim to rank as great artists.

One of the most striking and pleasant of discoveries to be made in going through these volumes is the number of the smaller works executed by Robert and his brothers. David Hume's tomb at Edinburgh, the small house at Brasted, Sevenoaks, garden temples, orange houses, etc., far too numerous to mention, charm with the freshness of a new discovery ; whilst the records of the many stately houses are set out authoritatively and in detail, enhanced by a most wonderful series of plates. Indeed, the whole profession lies under a great debt of gratitude to Mr. Bolton for his painstaking research and brilliant exposition—the result being two of the most fascinating volumes that the architectural press has produced for a long time.

SMOKE AND NOXIOUS VAPOURS ABATEMENT

Smoke and Noxious Vapours Abatement

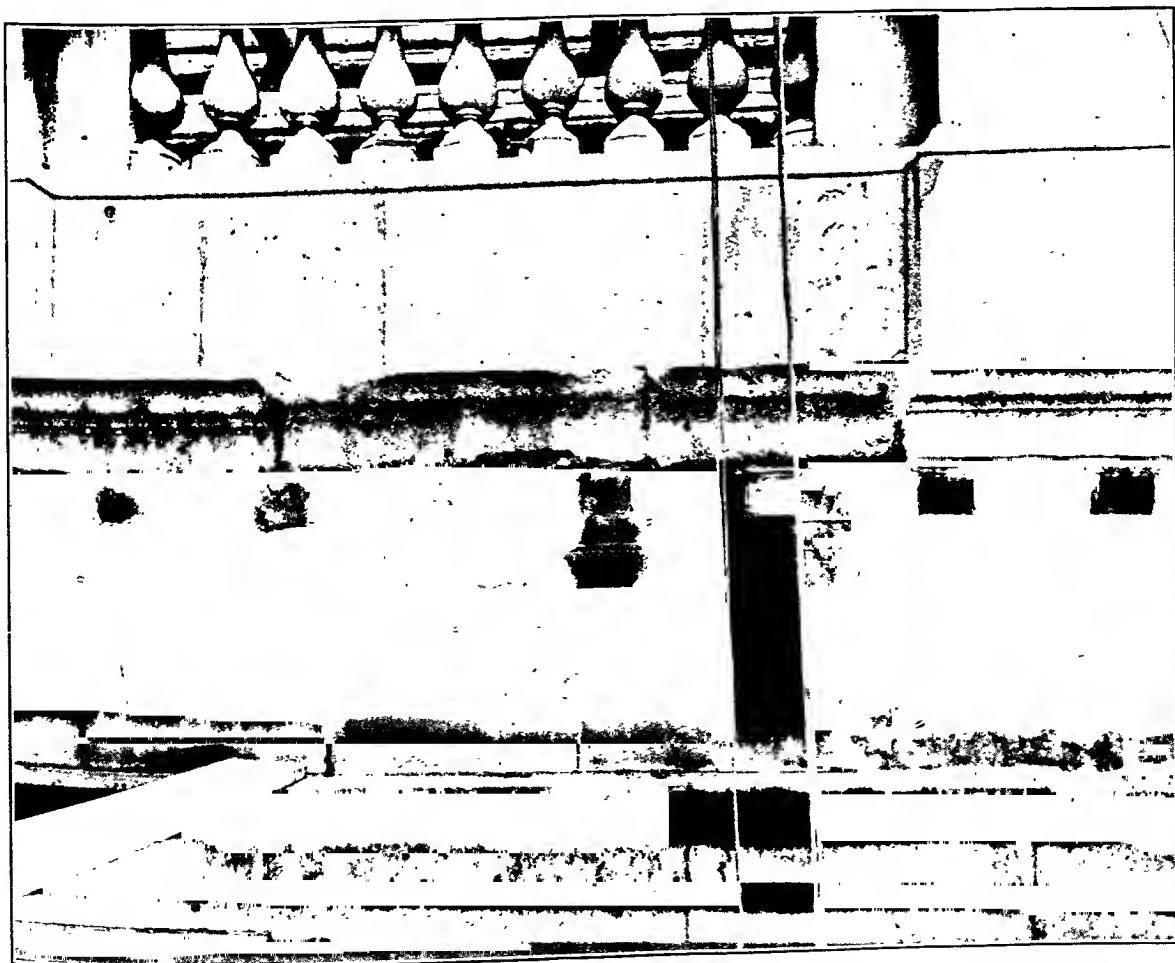
The late Dr. Murray, of Dictionary fame, used to say "a man ought to know everything about something and something about everything." This seems to be particularly applicable to architects, for whom more than for most men nothing of human interest ever can be alien.

That is why the recently published report on Smoke and Noxious Vapours should not be overlooked by us, although at first sight it is a far cry from the smoke nuisance to Beaux-Arts methods of design, for instance.

The Committee appointed to consider the question, in view of the housing activities of the Government, very wisely issued an interim report in June 1920, in order that the evidence they had secured might be

available for the Housing Authorities, and as a result they "emphasise the fact that the present housing situation affords a unique opportunity for constructive reform with regard to the heating, cooking and hot water supply arrangements in domestic buildings," and they "urge strongly that those who are engaged in the preparation of new housing schemes should use the means which are available and practicable for cooking and heating water and warming rooms with little or no smoke," such action being considered desirable, even if some small increase in expenditure were involved.

The main report issued in December 1921 is more drastic, as the Committee recommend that the Central Housing Authority should go so far as to decline to sanction schemes unless special provision is made for the adoption of smokeless methods, and that all industries should use the best practicable means for preventing atmospheric pollution: and to aid the good work they recommend that the law should be made



SOMERSET HOUSE (QUADRANGLE). PORTLAND STONE CORNICE, SHOWING DECAY AND SOOTY INCRASTATION

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

more stringent, and if local authorities continue to fail in their duty the Ministry of Health should have power to enforce the law over their heads.

They consider that the chief factor in the failure to deal with the smoke evil has been the inaction of the Local and Central Authorities. This inaction is likely to continue if the general public exercise no more discrimination in the future than in the past in their adverse criticism of Government control over national questions.

One fact—so commonplace that it is in danger of neglect—is made clear in the report, namely, that it is by no means essential to the well-being of the low-grade civilisation in which we live, even from the commercial standard of profit and loss, that our buildings, upon the detail of which architects have doubtless spent hours of labour, should be ruined by a smoke-polluted atmosphere (see the appended illustrations from Somerset House and the Houses of Parliament).

Before 1912 Pittsburg, U.S.A., was so cursed by smoke that the public revolted and brought pressure to bear upon the manufacturers, who said, quite naturally, that the existing smoke was necessary for their activities and prosperity ; but experiments were made, and in the long run the manufacturers came to the conclusion that the imperfect burning of their coal was a waste which might be saved with benefit to their pockets : as a result Pittsburg is now relatively smokeless.

The same may be said of Dusseldorf, Cologne and other industrial towns throughout Westphalia and the Rhineland. There is probably considerable truth in what Dr. Saleeby said in a recent lecture to the London Society, that nothing remains on earth like the pollution of our industrial cities.

The evidence and the report are worth more attention from architects and the public than they are likely to get.

W. E. VERNON CROMPTON [F.]



HOUSES OF PARLIAMENT (CLOISTERS). CAEN STONE PLINTH, SHOWING EXFOLIATION AND SERIOUS DECAY

REVIEW

Review

REINFORCED CONCRETE : *A practical handbook for use in design and construction.* By R. J. Harrington-Hudson. London : Chapman and Hall, Ltd.

The fact that this work appears under the aegis of Mr. Fiander Etchells is, in itself, an assurance that the book deserves attention as a serious contribution to the literature—already by no means inconsiderable—which deals with the subject of reinforced concrete. Moreover, a hurried glance over the pages of the book produces a favourable impression : the distinct and elegant printing, the well-drawn and clearly reproduced illustrations betoken a care and thoroughness as regards externals which arouse confidence that the subject matter will also be found to be carefully compiled and thoughtfully expressed.

The book is divided into three parts : Part I., entitled "Materials and Construction," deals with the component materials properly speaking, centering and placing of reinforcement. Part II., on the subject of "Design," after treating of weights and stresses, takes up successively beams and slabs, tee-beams and pillars, passing on to a completely worked out example of the calculations for one storey of an office building, and closes with a chapter on specifications, regulations and notation. Part III. introduces the subject of "Monolithic Design," which is further developed in three out of the six appendices which close the book. The author expresses his hope to be able to publish a further treatise on the important subject of monolithic design, but in the present volume attention is confined to the interaction of beams and pillars in one or more spans and on one or more storeys.

Appendix I. consists of "Brief Notes on Simple Applications of the Calculus," but assumes some knowledge of the calculus on the part of the reader. Appendix VI. treats of the graphic computation of bending moments and shearing forces in continuous beams, the method adopted being that first published for the English reader by Mr. William Dunn in his *Lectures on Reinforced Concrete*. (London : University Press, 1911.) No proof or explanation of its theoretical basis is given ; but this might have been an unnecessary, though interesting, encumbrance in a book of this kind. It may, perhaps, be permissible and of interest to remark here that a theoretical explanation of this method was published in the *Journal of the Royal Institute of British Architects* for March 1918.

The book presents very little opportunity for fault-finding, and should prove a very useful and complete guide and companion to those occupied in reinforced concrete work as applied to buildings—the word "buildings" being used here to mean offices, ware-

houses and similar constructions to the exclusion of bridges, piles, silos, water towers, sewers and other works of a more purely engineering interest which offer such peculiar opportunities for the use and development of this form of construction, and which have filled so much space in other works on the subject. This limiting of the scope of the book seems in every way an advantage. The author has been able to produce a work of reasonable size and cost, dealing thoroughly with all that concerns the reinforced concrete frame building ; to include with the same thoroughness and completeness all types of construction for which reinforced concrete is used would have involved an unwieldy and expensive work.

JOHN H. MARKHAM [A.]

Correspondence

LONDON AND PARIS.

Torquay,
17 November.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I read in the last issue of the JOURNAL, with something of bewilderment, the remark in the President's address, that "Paris is a large—a very large—country town. London, however much you were to reduce its size, could never be a country town. It does not differ in degree, but in kind."

My own impression about the two cities has always been exactly the reverse. It is the business of a capital city to be stately, and Paris is stately. Her main avenues and buildings are laid out with that attention to the axiality which is a necessary element in stateliness of effect. London is in many places picturesque, but nowhere stately, and axiality is never considered at all. London seems to me, in this respect, to have the characteristics of an enormous village, where everything is haphazard. Paris is designed as a capital city.

H. HEATHCOTE STATHAM [F.]

THE LIGHTING OF PICTURE GALLERIES AND MUSEUMS.

New Zealand House,
415 Strand, W.C.2,
17 November 1922.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I forward herewith the Section of the Lady Lever Art Gallery referred to by the architects, Messrs. William and Segar Owen in your last issue, as having been designed in 1913. It was kindly given me by them for publication when I visited the Gallery about eighteen months ago.

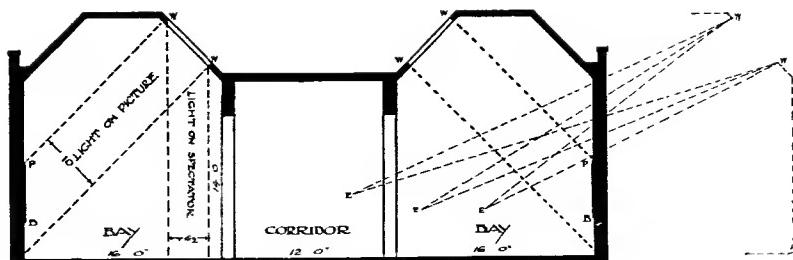
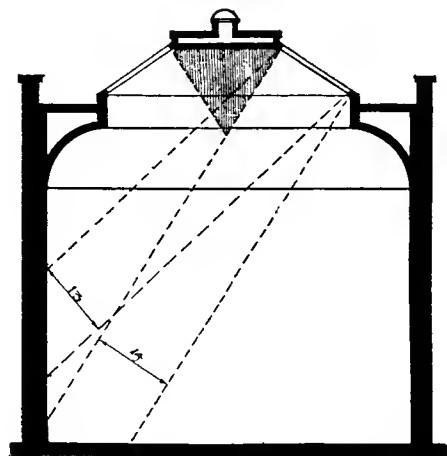
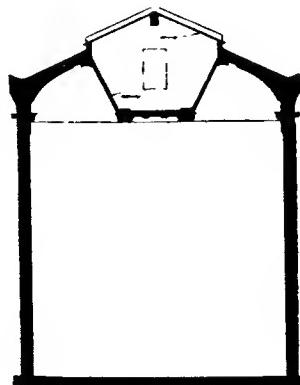


FIG 7 CROSS SECTION
DIAGRAM TOP SIDE-LIGHTED GALLERIES



SECTION OF NEW GALLERY DULWICH
SHEWING STRONGEST LIGHT ON FLOOR.



WIDTH 22 FEET.

THE LADY LEVER ART GALLERY, PORT SUNLIGHT.
MESSRS. W. & SEGAR OWEN, ARCHITECTS.

PICTURE GALLERY LIGHTING

It would, under the circumstances, be ungracious to criticise the design, but I would ask you to be good enough to reproduce beside it the Section of my Top-Side-Lighted Method published in our JOURNAL in 1912, and also the Section of the new roof of the Dulwich Art Gallery from the same source. See figs. p. 58.

Those who have studied the essential principles of the Top-Side-Lighted Method will at once see the reason for the expression of the hope in my last letter "that we shall soon see constructed on this side of the world an example closely following the lines laid down," and will be able to distinguish the essential differences between the many new roofs which have lately been erected, and the type of roof and gallery I advocate.

S. HURST SEAGER [F.]

PICTURE GALLERY LIGHTING: MR. HURST SEAGER'S METHODS.

Mr. George Northover, the late Editor of the JOURNAL, writes :—

Referring to Mr. Hurst Seager's letter in your last issue, may I, as editor of the JOURNAL when Mr. Seager's original communication appeared, be permitted to mention that his Paper at that time raised the question of art gallery and museum lighting on to a plane of scientific exactitude which it had never before reached. This is clear from the bewildering discussions on the subject at the Institute and elsewhere, when various solutions of the problem advocated by some of the debaters were promptly controverted by others. Mr. Seager's Paper was published in the JOURNAL of 20 November 1912—ten years ago. The war has blotted out much that under normal conditions the memory would have retained, and it will be useful, perhaps, to recall the late Mr. C. C. Brewer's Godwin Bursary Report on American Museum Buildings [JOURNAL, 12 April 1913], where he refers to the dissatisfaction among American Museum directors at the buildings provided for their collections, a dissatisfaction, he says, which shows itself largely in indiscriminate abuse of architects, whom the directors effect to regard as hindrances to museum progress. Mr. Brewer asks "whether a speedier way to the ideal museum building than abuse of the architects might not be found in a careful study of existing buildings and of the weary crowds that pass through them, with an effort to discover which rooms seem the most attractive, and why?—which method of lighting or arrangement causes the crowd to linger, etc., etc.?"

Mr. Seager's Paper shows that he had already taken the speedier way pointed to. In 1907 and 1908 he had gone to all the principal British, French, Italian and some of the German galleries, and his illuminative Paper gives the matured fruit of his studies. The conclusions arrived at, the reasons for them, and his own solutions of the problems involved are described at length and elucidated by diagrams and photographs. He proves to demonstration that his method of top side-lighting by means of a row of vertical windows on each side of the central part of the roof, the roof covering of this central part being raised above the windows, is capable of being applied in various ways and

to all usual forms of rooms. Mr. Seager's efforts, it is pleasing to record, are bearing fruit in various directions. In America, France and Holland the directorates of the national galleries have come to regard him as the pioneer of scientific lighting, and warmly commend his methods. Quite lately he gave by invitation a demonstration of his ideas at the Louvre, Paris, his audience on the occasion comprising the directors of the Louvre and similar institutions in France and many distinguished French architects. The gratification Mr. Seager expresses in the last number of the JOURNAL at finding his ideas confirmed and his actual design reproduced in the Report of the National Physical Tests [JOURNAL, 21 October] can be well understood. One would like to have seen, however, in the Report, some acknowledgment to the author of the methods favoured by the scientists as a result of their inquiry.

The Library

GESCHICHTE DES BAROCK IN SPANIEN. By Otto Schubert, 40, Esslingen, A.N. 1908. 8s. [Esslingen A.N. Paul Neff Verlag (Max Schreiber).]

An exhaustive account of the rise, culmination and fall of the Baroque style in Spain, with German text and some 300 illustrations. Although the richer examples might act as useful deterrents to the inventors of new styles, the planning of these buildings shows a refreshing fertility of invention, and the boldness of composition in mass and light and shade deserves close study.
H. M. F.

BRUNO PAUL: His Life and Work. fo. Munich n.d. 18s. [Bruckmann, Munich.]

A volume of reproductions of the work of a well-known German architect of to-day. It consists very largely of his domestic work, and the many illustrations (mostly of interiors and treatment of furniture) show a discretion and reticence in design not usually associated with modern German architects and designers.

C. H. T.

ARCHITECTURAL DRAWING. By Wooster Bard Field, 40 New York, 1922. £1. [McGraw-Hill Book Co., Inc., 370, Seventh Avenue, New York.]

Compiled by an American professor of engineering, drawing for the benefit of the architectural draughtsman. This book contains the usual chapters on Instruments, Perspective, Shadows, Lettering, Classic Orders, etc., with numerous explanatory diagrams. In addition, a number of plates of American working drawings as prepared to be issued to contractors in blue print form, with the varied hatching and cross-hatching employed when coloured working drawings are abandoned. There is also a complete table of the symbols generally used by draughtsmen when preparing these drawings.

G. D.

TÜREN UND TORE AUS DEUTSCHLAND, ÖSTERREICH UND DER SCHWEIZ. By Dr. Ludwig Nolte-Bürner, 40, Stuttgart. 10s. [Stuttgart, Verlag von Julius Höfmann.]

This book contains over 350 photographic illustrations of old doorways and gateways—ranging from Romanesque to Renaissance and Rococo, with a few Gothic specimens—in Germany, Austria and Switzerland, a few of them dated, and amongst them many interesting examples, although somewhat debased in character. There is a short introduction by C. H. Baer, but no descriptive details, and no drawings.

L. A.

The Architecture Club

The second quarterly dinner of the Architecture Club was held on Friday evening, 10 November, at the Hotel Cecil. The company of members and guests numbered about 100. Mr. J. C. Squire was in the chair.

Mr. Charles Aitken, in proposing the toast of the Club, said that such an architectural welter as the south side of Piccadilly Circus and Trafalgar Square worried him, and he spoke of the influence that buildings had on people. He said that the good proportions and refined detail of the house that he lived in as a boy had made a great impression on him. This house was designed by John Carr, the architect of York, who also designed the Crescent at Buxton. He pleaded with architects to provide space in building for mural decoration.

Mr. Gilbert Scott, in responding, said that the Club was formed to improve public appreciation of good architecture, but somewhat stultified his argument by adding that he preferred the criticism of the entirely ignorant man, who always laid his finger on the weak spot in a design. Perhaps it is the half educated man on whom Mr. Scott hopes the Club will have a beneficial effect.

Mr. O. P. Milne, in submitting "The Guests," said that the presence among them of so large and distinguished a body of guests during the excitement of a general election might perhaps be taken to show that they appreciated the importance of modern architecture, and that when politicians and their policies were mere matters of history, the buildings put up to-day would remain to show what was our way of life.

Mr. William Rothenstein, responding in an interesting speech, said that we should praise good work wherever we found it.

Mr. Hilaire Belloc also responded. Speaking as a layman, he said he considered present-day architecture chaotic, but "style" would evolve. We could take it from him, as Moses said when he came down from Mount Sinai, "that we could rebuild our towns in any scale we wished, if we would only realise it, without impoverishing the community."

In making a statement of the work and aims of the Club, Mr. J. C. Squire said that he was going to give a few facts, which had not been the strong point of the evening speeches. The Club had decided to hold an Exhibition of Architecture, entitled "Twenty Years of British Architecture," during March next at Grosvenor House, which had been kindly lent to the Club for the purpose by the Duke of Westminster. Architects would be invited to submit photographs and models.

Sir Lawrence Weaver proposed "The Future of the Arts." He disagreed with Mr. Gilbert Scott that there was too much talking, and thought that the most interesting conversation he had ever missed was on the occasion when Sir John Evelyn, Sir Christopher Wren, and Mr. Pepys went down to see Greenwich Hospital. The architecture of the future must be a just combination of tradition with invention.

Mr. Charles Marriott looked for the day, he said, when architecture would come back to the fundamentals of brick and stone. There had been too much designing on paper.

Allied Societies

NORTHERN ARCHITECTURAL ASSOCIATION.

Mr. T. R. Milburn [F.J., in the course of his Presidential address to the Northern Architectural Association on 8 November, said : "An encouraging sign of the times to our profession is the increasing interest taken by the public in architecture. This stimulating of the public interest by our great journals should be looked on with favour by all societies associated with the art.

Unification and registration must in the coming year engage our earnest attention, and I would ask : Is not our aim something more than to shut up the unqualified man who calls himself an architect ? That is only a phase of our profession and a circumstance of the hour. Our aim should be to qualify him to be an architect, to make him fit to be one of us, and, if this is not possible, to aim at his successor becoming one of us and a unit of a united profession. My idea of unification and registration is to unite first, and I have already put my views before the Institute through the Council of Allied Presidents—that all is not done that might be done by the Institute. I consider that a roll call should be made by the Institute and Allied Societies of all practising architects and their staffs, and that all pupils and assistants should be approached and appealed to by the Institute officially to qualify for membership. I know a great deal is done in this way by principals, but not always, and a continued movement by the Institute would be bound to be attended by good results. I think if this were done we would get so much larger a membership that registration would follow easily. This appeal, I may say, has attracted the notice of the Cape Institute of Architects, whose secretary has written to say that the Cape Institute has been particularly interested in the scheme to further the inducement for every young architect to qualify for the Institute.

The elections, however, have overturned the policy of the Council of the Institute, and we as members must be loyal to the majority. If 50 per cent. of voting members returned a majority for the present registration proposals for the Institute, and 50 per cent. of the members did not trouble to vote, then it is clearly the duty of the governing body to frame a policy to conform with the majority voting. This is being done, and no doubt we will shortly have laid before us a Registration Bill for consideration. But I still maintain that a united profession is the higher aim. Meeting as we have to-night means unification, every little help we give to each other means unification, the friendly acceptance of our little defeats one over another helps unification, the encouragement and help extended to those under our care means unification, the aid we give to our local associations, our loyalty to the Institute and the care we take with our daily work all make for unification and registration, or registration and unification, whichever you prefer.

Has it ever occurred to you how the scope of the work of an architect has increased during the last few years, at least the work of the provincial architect ? I think my remarks do not apply so much to London architects. We provincial men are now called upon to advise on many subjects not provided for in the curriculum of our examina-

ALLIED SOCIETIES

tions or mentioned in our text-books, and I may mention a few which I would advise all young men to pursue as opportunity affords. Compensation under the Licensing Act of 1904, although in substance is based on the technical details of the brewing trade, is, in the preparation of claims, interwoven with information which can only be properly supplied by our profession in advising on alterations to the property after the licence is removed, the calculation as to the altered value of the house, and an estimate of the depreciation of fixtures. Then we all remember the Finance Act of 1910 for the imposition of Increment Duty. The first stoppage of house building was due to its agency, and the want of houses led to its repeal. The provisions of this Act furnished welcome work to those of our ranks who made themselves familiar with it.

At the present time property owners are flooded with yellow forms to fill in, to set forth annual values for the new assessment for Schedule "A" and Inhabited House Duty, and I feel sure that many of us will be called in to advise or to give our services in cases of appeal. Dilapidations are a recognised subject in our text-books, but we are all now more familiar with "Marching-in statements" than we were before the war. Architects' valuation work of all kinds has grown in demand, and much technical work under this head should come our way, such as valuation for upkeep, mortgage, assessment, advising on sale or purchase, etc. The up-to-date architect must keep himself in close touch with the Town Planning Acts, Factory Acts as applied to building work, the State-aided housing schemes, relaxation of Building By-laws, and all the time war-time measures still cling to our everyday life—rents restrictions and defence of the realm measures and restrictive legislation.

The necessary qualifications and aptitude for giving evidence and being able to face cross-examination should be closely followed by our younger men. It is not given to everyone to be what is called a good witness, and those entering the profession who are capable should follow this up and train for it, as good men in this line are scarce.

The Rent Protection Act may go another year or two. Its repeal is of the utmost importance to us. The provision of the Act, which was passed so that during war-time and the shortage of houses rents should not be abnormally raised, has sometimes been shamefully abused by profiteering tenants, who, availing themselves of the provisions of the Act by sub-letting, have reaped a harvest denied to the legitimate owner. The ownership of the houses in many cases has not been worth while owing to low rents, increased cost of repairs, taxation, rates, etc. The consoling fact is that affairs are getting stabilised and houses with vacant possession are not bringing such abnormal prices, ruling values are more level—whether houses are occupied or vacant—and so soon as this position arrives the Act can with safety be repealed. The great solution, of course, is the provision of more houses, and this will only come when private builders get into their own and are secure against unreasonable legislation such as rent restriction or increment duty. I cannot see why an owner of a house should ever have been charged or threatened with a tax because the value of his property had increased, any more than the holder of a block of railway shares should be charged on the ground that his shares had

increased owing to a larger travelling public. I feel I will not be popular when I say that I am not so sure of the case for architects designing workmen's houses on scale fees. The fact is, a workman's house, to let at an economic rent, will not stand large fees, and I think we ought to get into touch more with builders who will undertake the development of estates and agree on a reasonable fee that will be contributory to a business proposition.

One of the many problems that are continually cropping up in our everyday life is varying costs, and another the keeping of ourselves up to date with new materials. The problem of cost is most difficult and variable, and a percentage of reduction on war cost or an addition on pre-war cost cannot be applied on strict scale to all buildings. Some materials have varied very differently as to cost compared with others, and the variation in cost, of course, is differentiated according to the particular material or amount of labour that predominates. Personally, I think we have about touched the lower level. Cost of building will never be down to pre-war figures, and as new works are started by the advent of better trade and house building is stabilised once more, there will be a tendency towards costs increasing. You need to keep in close touch with the varying markets nowadays to be able to present a reliable estimate. Generally, however, I should say we stand now at about 90 per cent. above pre-war figures.

With respect to the second of my problems, I am old-fashioned as to choice of materials. Give me a good slate roof for efficiency and economy, good brick walls, steel construction and reinforced concrete floors. I would, however, like a word on steelwork. A good, well constructed timber roof of stout memel or Riga redwood has a long life and is sound building construction. Such a roof on inspection sixty or seventy years after erection shows little change and gives confidence, but with respect to steel roofs, we put them up, the hatch is closed, and, except the electrician who goes up to repair his mains, who cares what is going on? The owner has the outside and inside painted as occasion demands, but beyond the coat of paint at the works, steel roofs are very seldom looked at. These roofs are often put up during wet weather, and scaling and deterioration sets in, and I often wonder how the construction will compare with the old timber roofs after long years of trial. Regular painting even every ten years would do a lot.

With respect to ferro-concrete, it is often difficult to decide whether this form of construction will be economical. It has many advantages and in some buildings prudence dictates its use, and so we go on to decide as to the merits of asbestos, slates, new forms of floors, new floor coverings, patent partitions, patent glazing, asphalt covering, artificial stone, the many felt coverings, waterproof cement, patent plaster, fibrous plaster, patents in all kinds of joinery work, stair treads, new systems of hot water supply, heating systems, gas or electricity, lighting, ventilation, and oil and water paints. In all these items there are continually new proposals on which we must be prepared to advise. In these days of advertising, our clients very often see them even before we do, and it may be awkward to plead ignorance.

One of the dangers that I see in our profession is over-crowding. The avenues leading up to the practising archi-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

tect are now inviting and alluring ; the various schools now well established in all centres, the lure of scholarships, the attractiveness of the profession, growing public interest, housing, fair and open competition, all tend to attract more men to follow the art. We are rather worse off than doctors and lawyers, because the overcrowding tends to encourage public authorities to run their own architects' departments, to the disadvantage of the practising architect. However, there is always room for the industrious as well as the best, and, after all, what a really interesting, clean and wholesome profession it is ! None of us, I suppose, are really ever dull or bored with our work—always change, always new problems to be overcome, and the joy of our visits to old buildings and our ability to trace the history and age from a pillar or two, a bit of foundation or a base, and in our imagination reconstruct them.

BIRMINGHAM ARCHITECTURAL ASSOCIATION

The first General Meeting of the Session of the Birmingham Architectural Association was held on Friday, 3 November. Mr. Rupert Savage, F.R.I.B.A., the President, in the course of his address, dealing with the influence on architecture of popular opinion, said :—

"Architecture is one of the most important demonstrations of national character, and its achievement may be considered a reflex of popular sentiment.

"If we consider the great epochs of building activity, we find that the nobler developments of architecture are coincident with great political and commercial activities. The architectural splendours of Greece and Rome were the outward expression of intense national energy. The great public buildings were frequented by the common people, and the public squares and market-places were a source of pride to the citizens generally.

"In the middle ages the predominant sentiment of religious fervour and civic pride found expression in ambitious churches and public buildings, while at a later period the masterpieces of the Renaissance were the outcome of an immense revival in the realm of scholarship and culture. It cannot be doubted that these great architectural achievements were due in no small measure to a popular desire for some visible demonstration of wealth and power. It must surely be a source of wonder to many that we are to-day unable, or unwilling, to emulate the great works of the past.

"It must be remembered that many of the great constructions of the earlier centuries were rendered possible by the use of servile labour. Then again, the simpler scale of living among all but the wealthiest class released for great constructional works labour now employed in manufacture ; while, lastly, there was a conscious desire on the part of the people, or their rulers, for some abiding evidence of their own greatness.

"The present generation does not realise the poverty of its environment. A sort of mean materialism frustrates all the efforts of the altruistic spirit. The poor modern building of the recent past seems to have overlaid and effaced traditional work in most English towns in a greater degree than appears in many Continental towns. Even in new and partly developed countries, such as Brazil and Argentina, the cities are being planned on an ambitious scale, and

we find that the inhabitants of these fine cities are quite conscious of the value of their inheritance.

"In this country the great restraining influence on architectural design and town-planning has been the worship of so-called 'efficiency.' We rightly demand that our buildings and streets shall be conveniently planned ; but we show great reluctance to make any sacrifice to mere beauty. A big effort has recently been made to improve the housing conditions of the working-class, but in these undertakings the cult of ugliness prevails.

"The responsibility for the past must be shared by the public and the profession. The public knew nothing of good architecture, while the architects were for the most part inadequately trained and educated. During the last few years there has been a marked improvement in both respects, but before we reach a satisfactory standard two conditions are indispensable—public appreciation and professional efficiency. The ignorance and indifference of the public in matters architectural is largely due to lack of publicity. It is possible editors may think that the public is not interested in the subject, but it should be remembered that the popular interest displayed in other arts is largely stimulated and developed by the enlightened criticism of the newspaper press. While preaching to our fellow citizens, we must remember that if we demand increased confidence in ourselves and respect for our art, we must do our utmost to deserve them.

"Much has been done in recent years to systemise and improve the training of young architects ; but in order to further our efforts for professional improvement and to give the public that confidence which we desire, we need some form of compulsory qualification, and we feel that this may best be attained by an Act of Parliament restricting the use of the title 'architect' to those holding a diploma from some responsible body such as the R.I.B.A. Our aim is not wholly selfish ; we desire not only to gain public appreciation of our art and a better status for architects, but to hasten the abolition of all that is mean and squalid in our present environment, and to encourage the gradual up-building of cities which shall be worthy of a great nation."

At the close of the paper a vote of thanks to the President was proposed by Mr. H. T. Buckland, F.R.I.B.A., seconded by Mr. G. Salway Nicol, F.R.I.B.A., and carried unanimously.

THE BRISTOL SOCIETY OF ARCHITECTS.

The Union of the Bristol Society of Architects and the Gloucestershire Architectural Association has been approved by the Council of the Institute.

VISIT TO THE WORKS OF MESSRS. FARMER AND BRINDLEY.

The Art Standing Committee have arranged a visit to the works of Messrs. Farmer and Brindley, Ltd., marble masons, of 63 Westminster Bridge Road, S.E.1, on Saturday, 9 December 1922, at 10.30 a.m.

The visit is arranged for the morning in order that actual work in progress may be inspected, and it is hoped that architectural students will join in the visit.

Members of the R.I.B.A. and their friends, and students of the architectural schools, who wish to take part in this visit should apply to the Secretary R.I.B.A., by whom tickets will be supplied.

NOTICES

ARCHITECTS AND LIMITED LIABILITY COMPANIES.

The Council of the Royal Institute have passed a resolution to the effect that it is undesirable for members or Licentiates of the Royal Institute to form themselves into limited liability companies for the purpose of carrying on the profession of an Architect.

REGISTRATION.

The Registration Committee have submitted a draft Bill for the Registration of Architects which has been approved in principle by the Institute Council, who have directed that it should be sent to the Allied Societies for their comments.

Competitions

"THE MODERN HOSPITAL" COMPETITION FOR SMALL HOSPITAL PLANS.

The Modern Hospital Publishing Company, of Chicago, has promoted an Architectural Competition for Small Hospital Plans. Premiums of \$500, \$300 and \$200 will be paid to the authors of the designs placed first, second and third by the jury. Architects desiring to take part in the Competition should write immediately to the Modern Hospital Publishing Co., 22 East Ontario Street, Chicago, Illinois, U.S.A. Designs must be delivered not later than 1 February 1923, and intending Competitors are expected to register their names with the Architectural Adviser, Mr. Richard E. Schmidt, 104 South Michigan Avenue, Chicago, Illinois, U.S.A., before 15 December next. A copy of the Conditions of the Competition can be seen in the Library of the Royal Institute of British Architects, 9 Conduit Street, W.I.

IAN MACALISTER,
Secretary.

Notices

I. THE THIRD GENERAL MEETING.

The Third General Meeting (Business) of the Session 1922-1923 will be held on Monday, 4 December 1922, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on 20 November 1922; formally to admit members attending for the first time since their election.

To proceed with the election of the candidates for membership whose names were published in the JOURNAL for 21 October 1922 (pp. 637-40), and 11 November 1922 (pp. 28-32).

THE SCALE OF PROFESSIONAL CHARGES.

The Chairman will move the following resolution :—

That Clause 9 of the Scale of Professional Charges be omitted, and that a foot-note be added to the Scale calling the attention of members to the General Housing Memoranda of the Ministry of Health embodying the fees for housing work now in operation.

II. SPECIAL GENERAL MEETINGS.

NOTICE IS HEREBY GIVEN that a General Meeting will be held at No. 9, Conduit Street, W.1, on Monday the 4th day of December 1922, at 8.15 p.m., for the purpose of considering and, if thought fit, passing the following resolution :—

That the Council be authorised to create a Mortgage or otherwise to charge all or any the leasehold and freehold property of the Institute as the Council shall think fit, to secure the sum of £20,000 and interest, and to execute such deeds and documents as may be required in connection therewith.

AND NOTICE IS ALSO GIVEN that a further General Meeting will be held at the same place on the 18th day of December 1922, at 7.55 p.m., when a Report will be furnished of the proceedings at the General Meeting to be held on the 4th day of December 1922, and the above-mentioned resolution will, if passed by the requisite majority at the meeting, be submitted for confirmation.

Dated this 24th day of November 1922.

IAN MACALISTER,
Secretary, R.I.B.A.

APPLICATIONS FOR ELECTION.

The following applications for Election have been received. Notice of any objection or other communication respecting the Candidates must be sent to the Secretary for submission to the Council prior to Monday, 18 December 1922 :—

AS FELLOWS (5).

EPPS : WALTER MAXTED [A. 1908], 616-617 Bank Chambers, 329 High Holborn, W.C.; The Bungalow, Kidbrooke Gardens, Blackheath, S.E.

FOURACRE : JOHN LEIGHTON [A. 1905], Lloyds Bank Chambers, Bank Street, Plymouth; 16 Portland Square, Plymouth.

SOLOMON : DIGBY LEWIS, B.Sc.Lond. [A. 1907], 133 Moorgate, E.C.2; 14 Harley Road, N.W.3.

THOMPSON : CHARLES WILLIAM WARD [A. 1911], Bank Chambers, High Street, Rochester; "Rozel," Borstal Road, Rochester.

WALKER : THOMAS [A. 1913], County Offices, Trowbridge, Wilts; Bath Road, Devizes, Wilts.

AS ASSOCIATES (4).

DEVEREUX : WALTER ALAN [Passed 5 years' course at Architectural Association, London—Exempted from Final Examination after passing Examination in Professional Practice], c/o Architectural Association, 34 Bedford Square, W.C.

DUNN : ALICK STEAD [Special War Examination], Municipal Architect, Bombay Municipality, Boki Bunder, Bombay, India.

MOODIE : IAN ALEXANDER [Passed 6 years' course at Robert Gordon's Technical College, Aberdeen—Exempted from Final Examination after passing Examination in Professional Practice], 137 Clifton Road, Aberdeen.

SCOTLAND : GEORGE BRUCE [Passed 5 years' course at Glasgow School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Mossiel, Airdrie.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

SIR CHRISTOPHER WREN'S BICENTENARY

In connection with the Sir Christopher Wren Bicentenary ceremonies a memorial volume consisting of papers on various aspects of Sir Christopher Wren's life and work by authoritative writers, will be published under the auspices of the Royal Institute of British Architects and the St. Paul's Cathedral authorities. The profits accruing from the sale of the volume will be devoted to the St. Paul's Restoration Fund. Messrs. Hodder and Stoughton are to be the publishers.

Members' Column

BIRMINGHAM CENTRAL SCHOOL OF ARTS AND CRAFTS.

Applications are invited for the Post of Director of the School of Architecture vacant on 8 January 1923 by the retirement of Mr. W. H. Bidlake, M.A., F.R.I.B.A. The commencing salary, which will be between £400 and £600 per annum, will be determined by the selected candidate's qualifications, experience and time to be given by him. Canvassing, direct or indirect, will disqualify. Application forms and further particulars may be obtained from the Secretary, Central School of Arts and Crafts, Margaret Street, and forms must be returned to him by 6 December.

P. D. INNES,
Chief Education Officer.

MR. SYDNEY TATCHELL.

Mr Sydney Tat^tchell [F.R.I.B.A.], Surveyor to the Ironmongers' Company, has been appointed Architect for the design and erection of the Company's new Hall in Aldersgate.

SCOTLAND:

SCOTTISH Architect in practice in Edinburgh, A.R.I.B.A., F.S.I., is prepared to collaborate with London Architects having commissions in any part of Scotland. Apply Hon. Secretary, Edinburgh A A, 14, Hill Street, Edinburgh.

APPOINTMENTS WANTED.

A.R.I.B.A. with experience in design and supervision of varied work wishes to assist other Architect, either in his own office or as an Assistant with view to Partnership—Box 1611, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

DISABLED A.R.I.B.A. (26) desires position with private Architect, London preferable but not imperative. Working drawings, details, specifications and good knowledge of quantities.—Apply Box 256, c/o Secretary, R.I.B.A., 9, Conduit Street, W.1.

ASSOCIATE with twenty years' experience in London desires to render immediate assistance. All-round knowledge of planning, designing and general supervision of large contracts.—Apply Box 444, c/o Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

ARCHITECT desires share of office in London with another where occasional assistance is required, or would take management of office on reciprocal terms.—Apply Box 454, c/o Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

Minutes II

SESSION 1922-23.

At the Second General Meeting (Ordinary) of the Session 1922-23, held on 20 November 1922, at 8 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 10 Fellows (including 6 members of the Council), 13 Associates (including 2 members of the Council), 5 Licentiates, and a number of visitors. The Minutes of the Meeting held on 6 November 1922 having been taken as read, were signed as correct.

The Hon. Secretary announced the decease of :—

HON. FELLOW.

His Highness the Maharajah of Jaipur, elected Hon. Fellow 1891.

FELLOWS.

William Black, of South Africa, elected a Fellow in 1902.
Walter John Burrows, elected a Fellow in 1903.
James Crocker, of Exeter, elected a Fellow in 1886.
Alexander Percy Durlacher, elected a Fellow in 1921.
Arthur Harrison, of Birmingham, elected a Fellow in 1902.
Henry Thomas Gordon, elected a Fellow in 1881.
Richard Mauleverer Roe, elected Associate 1881, Fellow 1889.
Arthur Henry Reid, of South Africa, elected Associate 1881 Fellow 1889.

Howard Henry Thomson, of Leicester, elected Associate 1889 Fellow 1906.

RETIRED FELLOWS.

William Larking Bernard, elected Fellow 1889, and placed on Retired List in 1919.

John Bryce, elected Fellow in 1879, and placed on Retired List in 1908.

Walter James Ebbets, elected Associate 1875, Fellow 1882, and placed on Retired List in 1913.

Alfred Williams, elected Fellow 1888, and placed on Retired List in 1918.

HON. ASSOCIATE.

Sir Thomas Brock, K.C.B., R.A., elected an Hon. Associate in 1908.

ASSOCIATES.

George Beaumont, of Chicago, elected Associate 1881.

Cyril Cliff Cheek, elected Associate 1916.

Robert Saxton Bessant, elected Associate 1895, Resigned 1909. Septimus Cecil Searle, elected Associate 1879.

LICENTIATES.

Harvey Mennie, elected Licentiate 1910.

John Alfred James, elected Licentiate 1910.

Basil Thorold Stallybrass, elected Licentiate 1911.

Collins Beatson Young, elected Licentiate 1910.

HON. CORRESPONDING MEMBER.

Don Enrique Maria Repules Y Vargas, of Madrid, elected an Hon. Corresponding Member in 1901.

And it was RESOLVED that the regrets of the Royal Institute for their loss be entered in the Minutes.

Mr. Lawrence M. Tye having read a Paper on " Illuminating Engineering in Relation to Architecture," and illustrated it by lantern slides, a discussion ensued, and on the motion of Sir J. Herbert Parsons, President of the Illuminating Engineering Society, seconded by Mr. W. R. Rawlings, Past President of the Electrical Contractors' Association, a vote of thanks was passed to Mr. Tye by acclamation, and was briefly responded to.

The meeting closed at 10.5 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Contemporary British Architecture

BY THE PRESIDENT (MR. PAUL WATERHOUSE, M.A.).

WHAT did Wren say, the great Sir Christopher, to whom next year we shall offer the honours of bicentenary remembrance? Here are his words: *Architecture has its political use, public buildings being the ornament of a country. It establishes a nation, draws people and commerce, makes the people love their native country; which passion is the original in all great actions of a commonwealth.*

Whether these words were a necessary reproof to the citizens of the seventeenth century, or whether they were but an echo of the popular appraisement of the architect, it is happily a fact that in England of to-day there is much less need to remind people of the importance of architecture than there was fifty, forty, or even thirty years ago. Men of commerce, men of trade, are nowadays aware that there is "something in it"; and it is rare to find the promoter of a big building—however utilitarian his views—who does not appreciate the necessity of getting skilled help towards shaping his structure in accordance with recognised rules of propriety. There are several reasons which will account for this—and perhaps the chief is one for which we owe a vote of thanks to prominent individuals in the modern world of trade. These men, wise enough to know that good taste is an asset, and clever enough to know where and how the good taste could be engaged, have been setting a standard from which their rivals and imitators dare not, for their very lives, fall back. Nor must we overlook the no less commendable, though less unexpected, fidelity of our modern banks, insurance offices, municipalities and public companies to the claims of architecture—the fitting mistress and hand-

maid of their constructional achievements. I shudder to think what would be the present aspect of London if certain vast enterprises of the last twenty-five years had come to birth in the third quarter of the past century. Those were the days when the flames of Gothic enthusiasm had died down, only to leave among certain architects an impression that, inappropriate as Gothic traditions were to the needs of modern commerce, the Gothic school had at least broken down all obligations towards the starched correctness (not *my* definition) of the classic rule. There followed, as an ignoble sequel, a period which it would be a mere compliment to call an age of licence. It had not even the immodest charms of licentiousness. The unhallowed result of the sense that traditional correctness did not matter introduced a theory, pleasant enough for the ignorant, that any whim which could find its way into the brain of any architect, however untutored, might appropriately find its way out of that brain on to his drawing-board and thence on to his unhappy creations.

It is to this train of reasonless reasoning that we owe most of the faults which make a large part of the City of London, and a larger proportion of Southwark, nightmares of jaded and mongrel effort.

"Originality," its producers would have called it, or possibly "design." But every drawing is a design and every building is original in the sense that it has an origin. It is only by the strangest freak of language that we confine this term to those things whose origin is as far as possible undiscoverable. Some would define as original those things "whose origin is in themselves," which are, in fact, contrary to all laws of Nature. Let

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

it be said at once that spontaneous generation is no fit method of birth for architecture. It is not only indecent but happily impossible, for the product of such birth, whatever name it may take, cannot have the architectural nature.

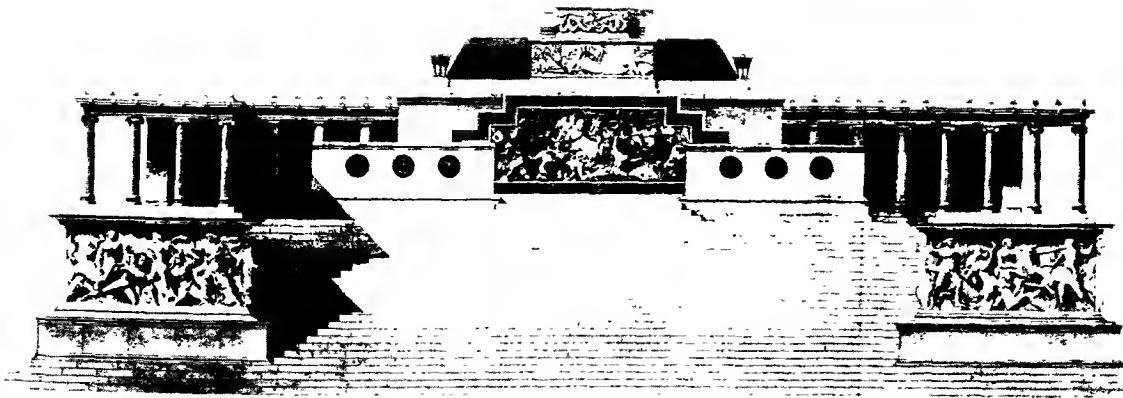
I am quite deliberately certain that British architecture to-day is healthier, stronger, and nearer to the unattainable level of pure art than it has been for a hundred and fifty years. If this were not a public document,* I would go further, and for this reason—that great and beautiful as were the achievements of the eighteenth century, miraculous as was Wren, magic as is the charm of his predecessor, Inigo Jones, and his great successor Gibbs, there was not in the days of those heroes, as there is to-day, so vast a company of contemporary architects among whom safe choice might be made.

To-day, it is true, there are men in the first flight to whom others are secondary ; but the number of the secondary is legion, and by calling them secondary I am not calling them second best. Many of them are only on the second step because of certain conditions of standing room, and every year our systems of well-devised rivalry bring fresh men into prominence from the deserving ranks of the juniors or of the less known.

Recent enquiries have led me to believe that architectural competitions, which are to many the ladder to fame, are nowhere in Europe conducted with such spotless fairness as characterises our British methods in this respect. Certainly there can be no land which surpasses the British Isles in the success and universality of its present systems of architectural education—a success and universality which are, I believe, daily increasing. I only allude to this educational subject in order to point out that no person or corporation desirous of erecting a truly architectural building on lines of authentic and scholarly architecture can have any excuse in Britain for failing to find an architect. I am not forgetting the supremacy of France in scholastic architectural training, nor am I overlooking the present laudable efforts of Paris to weld into that training a sounder knowledge of construction ; but I do say, armed with some personal acquaintance with modern educational conditions and free from personal doubts, that the employers or would-be employers of architects in this country have before them for their open choice an abundant army of highly trained men in whom taste, knowledge and energy have been nurtured by the friendliest of rivalry and the most enthusiastic zeal.

* This article was contributed by Mr. Waterhouse as a foreword to the Catalogue of the Exhibition of Contemporary British Architecture.





PERGAMON : THE GREAT ALTAR. RESTORATION BY M. EMMANUEL PONTREMOLI

Greek Public Buildings*

BY PROFESSOR ERNEST A. GARDNER, LITT.D., YATES PROFESSOR OF ARCHÆOLOGY,
UNIVERSITY OF LONDON.

THE life of the ancient Greek was lived largely in public ; his interests were mainly in the political and the social life, in the athletics and the religion of his fellow-citizens. He lived among them far more than he did in his home surroundings, and consequently we need not be surprised to hear, from Demosthenes and others, that in Athens, for example, you could not tell which were the houses of ordinary people and which were the homes of princes, like Miltiades, whereas the public buildings were of unparalleled magnificence. Many of these buildings were to serve religious purposes, and it is not always easy to distinguish these from such as are mainly political and social.

In a Greek town, relief to the streets would be given by the various open spaces that always existed in a town that grew, as Athens grew. These were spaces which had, for one reason or other, probably more or less religious, remained uncovered with buildings in the early days of the town, and survived as open spaces, relieving the monotony of the streets. But the streets were narrow, the houses, as a rule, opened on a courtyard, had no windows at the outside, and so, apart from the open spaces, the town would not be very imposing. But these open spaces were the essential thing, some for political purposes, some for temples and precincts, etc. Other towns, which did not grow naturally as Athens and many others did, were artificially laid out, and, as we should say, "town-planned." The conditions were different, but spaces were always reserved for commercial, political and social purposes and for the temples of the gods, as well as the assemblies of the people. And it was felt to be always desirable that a temple to

the gods should be placed in some conspicuous place ; that was particularly the case with Athens.

A view of the Acropolis at Athens, with the colossal columns of the Temple to Zeus Olympios in the foreground, shows, in the latter, a place of ancient sanctity, which had a great temple in later times, but outside the walls of the City, as were some of the most important temples. The Athenian Acropolis affords us the best commentary on the statement of Xenophon, quoting from Socrates, that it is pleasing that the temples of the gods should be placed in such a position that they could be easily seen from all parts, but not so easily approached, "for it is most desirable that men should be able to look towards them when they pray, but at the same time that they should not be able to enter them except after due preparation." From all parts of Athens you could see the temples on the Acropolis, but if you wanted to pay your due of worship to the goddess, you had to go round and climb away from the City to the sacred citadel, where you found yourself in more fitting surroundings for your approach. Similarly Pausanias remarks that the people of Tanagra did well to keep the temples of the gods apart from human habitations.

An example of town planning, dating from the middle of the fourth century B.C. is offered by the town of Priene ; it is on a hill, the Acropolis being above. It was planned with streets parallel to one another. But a large space is reserved for the market place, and there are various temples, gymnasiums, etc. There was the great gymnasium, with the stadium 220 yards long for running. Such buildings in Greece had not a rich ornamentation such as you see in Roman baths ; there is simply a quadrangle surrounded by a colonnade, and there are rooms which served as dressing rooms.

* A Public Lecture delivered at the Institute on 25 May.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The whole thing is simple, but admirably adapted to its purpose. We shall see other specimens of gymnasiums later on. It has attached a stadium for the exercises with which a gymnasium is associated. Here too you see the Ecclesiasterium, or Parliament House, not exactly a Parliament, but a sort of Select Committee House, where sittings were held. Another example of a town laid out for political purposes is Megalopolis, dated 370 B.C. It formed a centre for the Arcadian League. The two sides of the river corresponded with the two divisions of the city. On the one side is the Federal Capital, with its great theatre, used not only for dramatic representations, but also for the assemblies of the people. Close to it was the Parliament House of the Arcadians, called the Thersilion. On the other side you see the agora or market place, which was surrounded by porticoes on three sides, and there are traces of another one. At one corner is the sanctuary of Zeus Soter. That gives you a good idea of how the Greeks liked a town to be laid out for the convenience of citizens, and the kind of public buildings they required. A curious example of town planning, or rather of picturesque planning or landscape gardening, was a great scheme by Dinocrates in honour of Alexander. It was to fashion the mountain side into the figure of a giant with the features of Alexander himself, holding in one hand the city, and in the other a bowl which would hold a lake, from which the water would flow down into the sea. This was never, fortunately perhaps, carried out, but it shows what magnificent notions the later Greeks had.

A splendid example of a collection of public buildings of Hellenistic age is that of the town of Pergamon. The citadel of the town is built in terraces running along the side of the hill, and there are further terraces, with remains of buildings, on the top of the hill. The whole is on a more imposing and magnificent scale than at Athens, because here there is a mountain to work on. You see the theatre, with the great terrace below ; the agora, with the porticoes and other buildings, and the Temple of Dionysus, and the Great Altar, which was the most famous product of Pergamene art. Above this was a precinct of Athena Polias with porticoes surrounding it ; and beyond that, further terraces, including a great library. On the summit of the hill is the Trajanæum, an addition of Roman times. It is the most imposing piece of architectural design we know from ancient times. This kind of splendid laying out of a portion of a city in porticoes and extensive precincts and temples had a great influence on later times, and was imitated in such buildings as the Fora of the Cæsars at Rome ; in fact, as has been pointed out by architects, we have at Pergamon many suggestions that might be useful at the present day.

There were centres of worship in different towns, and I have mentioned the Acropolis of Athens as a

collection of public buildings, though they served a religious purpose. The Acropolis was not originally as you see it now. It was an irregular rocky plateau, on which the various buildings were erected in course of time, until it became a magnificent collection of temples. I shall not now speak about the development of the Greek temple, it is too familiar to you. These temples were not places for congregational worship. The precincts of a god were a place for his worshippers to assemble and the essential thing to have was an altar and an enclosed space around it, and generally porticoes were wanted to give them shelter in case of necessity. There must be a great altar of sacrifice, and it was desirable there should be a temple or temples to contain the images of the gods and to hold the numerous offerings and dedications that were given to the god. And the temples served other purposes as well. The Treasury of Athens was in the Opisthodomos ; some thought it was a separate building, but a probable view, I think, is that it was in the Opisthodomos to the Parthenon itself that the treasure of Athens was stored. It was in pots behind a grating, so that when on a feast day the citizen wished to worship the goddess, he could also have the great satisfaction of seeing the City Treasury, the pots full of gold and silver. There was a building to hold bronze offerings, and the Erechtheum was also full of rich offerings. The great altar, which is the place where the hecatombs were offered to the goddess on various occasions, was in the open. There are other buildings around, which it is not possible at present to identify with certainty. The Temple of Rome and Augustus, which was set up in Roman Imperial times, is the only thing which does not belong to the great age of Greece. We must remember that the Temple was not a place for congregational worship, it was not a place for the people to go into in great numbers to perform an act of worship or to attend a ceremony ; all the ceremonies took place in the open air, and the sacrifices almost necessarily so. The altar was a large structure. There was one at Syracuse which was a whole stadium 220 yards long. This was very necessary when you were to sacrifice a hecatomb, a very unpleasant proceeding, according to our notions. They must have had very special arrangements in the open air for such large sacrifices ; such things could not take place within a temple.

Athens is an example of a great precinct containing the sacred objects which belong to a single town ; but some of the most important places, where there are most public buildings gathered together, belonged more or less in common to all the Greeks.

Olympia, for example, is not on a hill, but in a plain, where there is a sacred enclosure clearly mapped out, the Altis. This was the enclosure containing the temple and altar of Zeus. There was the Temple of Hera, and other buildings we associate with such a precinct. A

GREEK PUBLIC BUILDINGS

row of treasures was placed there to hold the treasures, the offerings which were made to the god in the various cities of Greece. Many of the cities built their own treasures to contain these sacred objects, frequently precious stones and metals of great value. Then there were porticoes which offered shelter and places of vantage from which ceremonies could be seen. And there were porticoes also outside, which doubtless provided accommodation for the many thousands of visitors who came to Olympia for the great athletic festival. The Leonidaion was the great building laid out specially to receive the sacred embassies which were sent officially by the different cities to attend the festival of the god on behalf of their fellow citizens ; and there were other buildings associated with the priests and officials. The great Palaestra is very similar to that which we noticed at Priene. There is a great courtyard where there is plenty of room for wrestlers, with convenient waiting and dressing rooms. And there is the stadium, a long covered portico in which it was possible to practise running 220 yards under cover. At the other side of the Altis is the stadium where the contests took place. The appearance of Olympia when all these buildings were complete can be gathered from a restoration. You have the remains of the great Temple of Zeus and various porticoes, the old Temple of Hera, and the general appearance of open spaces surrounded by rich collections of statuary, scattered about.

Olympia was a more or less level site, and did not lend itself to such fine planning, in some ways, as did Delphi, which was placed high on the slopes of Mount Parnassus, and of which you can get a good notion from the restoration made by the French excavators. The sacred precinct did not belong to any one town, but was a place of common meeting for all the Greeks. The Sacred Way had Treasuries on both sides, and then the road turned round to the front of the Temple which dominated the enclosure. Above it was the club-house of the Cnadians ; the only example we have of such club-houses, although we do not know much about its form. There was also a theatre. That gives us as good a notion as is possible of what these centres looked like. The various buildings are repetitions of the form of a Temple, and this is characteristic of most buildings that can take such a form. There were also guest houses, in which to entertain people at the great festivals.

I want, now, to turn to the different kinds of building we find, and consider their use more in detail. First, the temple. I need not go into the development of the temple ; everybody here knows about that, from reading Vitruvius, and so on. I want to take one or two examples of the temple of a simpler form. Take a simple example like that of Zeus Soter at Megalopolis, which was at the corner of the market place. It is a temple with columns inside, and there were groups of

statues ; the porticoes and the open court were surrounded by a double portico where much shelter was provided. The uncertain climate of Greece renders such shelter valuable ; and such a precinct was intended to accommodate the congregation for ceremonies and worship. In the centre is a foundation which is probably the great Altar of Sacrifice, so that when a sacred ceremony was going on there was room for many people in these porticoes, under shelter when the weather was bad. Another feature is the propylaeum or entrance hall, and an exedra, or room to sit in apart from the crowd. This is a very good example of a temple precinct, which is the unit of the Greek arrangement.

We see a similar form in a restored house at Priene, of the fourth century ; it is a building with a portico in front of the main living room of the house ; and the house with its courtyard corresponds almost exactly to the temple and its precincts. And if you look at a plan like that of the Palace at Tiryns, you see a house with its portico and courtyard surrounded by porticoes which are analogous to the house at Priene. Whatever view we may take about the evolution of the Christian Church from the Atrium of Roman houses, there is no doubt the Greek temple was evolved, perhaps not from the courtyard and living rooms of houses, but from the palace and courtyard of a king ; for instance, the early temple of Athena at Athens was originally the palace of the king Erechtheus.

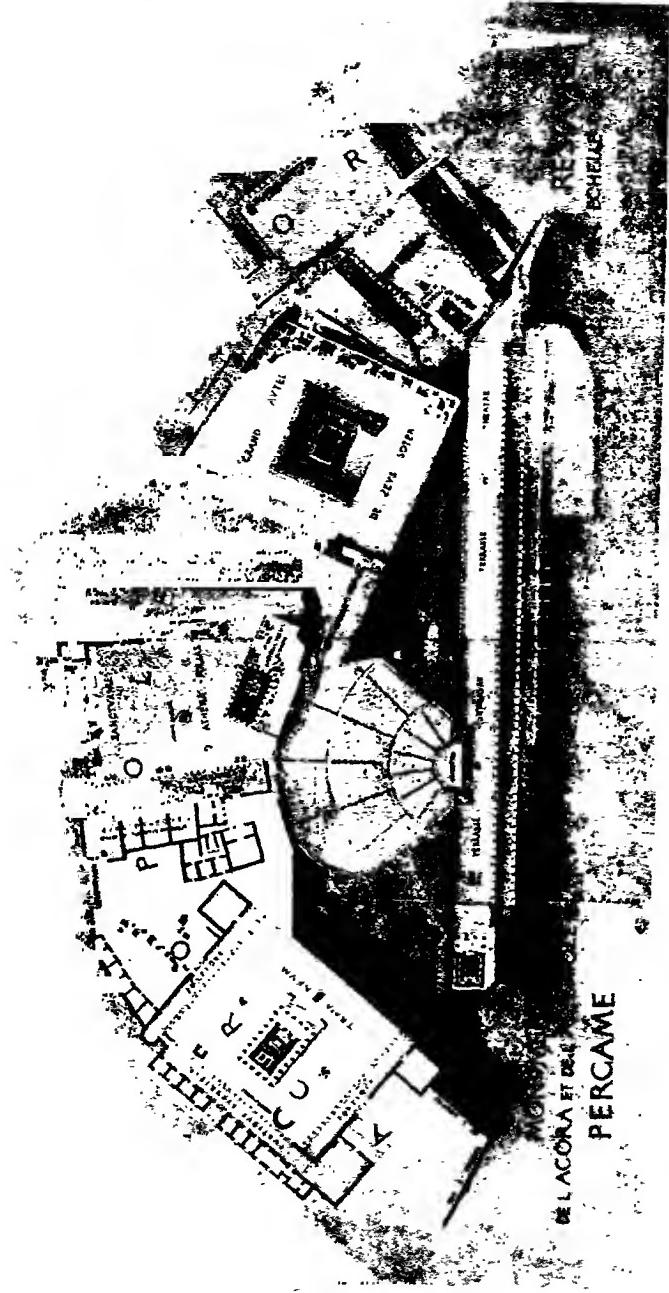
A more magnificent example of a precinct shows the same thing carried out in another way. This is the precinct of Athena Polias at Priene. It has a double portico and a gallery above it, a temple and precinct ; and the whole is a splendid architectural composition.

Another feature of Pergamon is the great altar, which was surrounded by a portico, and approached by a great flight of steps. All round there was an outer colonnade, under which was the great frieze of the altar, a masterpiece of Pergamene art. A restoration gives a notion of the magnificent architectural structure which this altar provided, and of the rich decoration and the sculpture which ran all round below the colonnade.

There was another form of building which had a special purpose. The precinct of Asklepius at Epidaurus was surrounded by walls, and contained an altar and a temple to the god. But here there were special requirements. There was a circular building, probably a place of sacrifice. There is also a building, the Abaton, which was a portico specially designed for the sick people who came to consult Asclepius so that they could pass the night. They made their offerings, passed the night in this portico, and during the night they were healed, or not healed. Naturally the cases which were not healed are not on record. And there were other buildings around, including the stadium



PERGAMON. RESTORATION BY M. EMMANUEL PONTREMOLI



PERGAMON. RESTORATION BY M. EMMANUEL PONTREMOLI

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

and the theatre. A plan of the smaller precinct of Asclepius, the same god, at Athens, is interesting because we have a record of the way in which it was used. It was customary for the sick to come and sleep in the building, and very often the god visited them in the night, and then they went out healed in the morning. The precinct contained the temple of the god and his altar, and there are porticoes for the accommodation of patients. This building corresponds with the porticoes where the sick people slept at Epidaurus. It has a sacred spring, of which the waters were more or less medicinal, and were no doubt used for medical purposes. There was also a pit where the offerings were thrown in, and a building of two storeys, with steps to the upper floor, where the sick men slept and saw visions ; and there was the compartment probably for the storing of sacred snakes. The priests kept snakes, and they must have been lodged somewhere convenient. A restoration shows what the portico was like. There were two floors, and at the corner was the pit of sacrifice. In the Island of Cos, which was the home of Hippocrates, there was a temple of Asclepius, with porticoes and cells opening out of them. Here there must have been something approaching a hospital, with private accommodation, probably for paying patients. There was accommodation for the large number of people who came to consult the god. It is probable that there was more of scientific medicine in the home of Hippocrates and less of miraculous cure than at Athens and at Epidaurus.

Another special use of buildings is offered us by the shrine specially adapted to celebrate the Mysteries at Eleusis. There were two great entrance halls, which did not lead through, so that whatever went on inside here was not visible to the profane ; only the initiated were allowed to see the ceremonies within. In the centre of the whole was a great hall, which has a very remarkable plan. It consists of an almost square hall, of considerable size, with a terrace above it, and the whole space of it filled with rows of columns. This is interesting because it is the hall in which the Mysteries were celebrated. There are various porticoes, store-houses, etc., which are common to all such precincts. A simplified plan on a large scale shows the great hall, with steps round it. No doubt these steps served as the seats of a kind of theatre, and the people to be initiated had to sit on them. Whatever went on in the way of ceremonial in the sacred drama must have taken place in this great hall. There was a rock-cut terrace above it, from which those not fully initiated could see what was going on. There could not have been a very consecutive drama to follow ; probably the performance was in the nature of a sacred procession or pageant, which went on winding in and out among the columns, and it must have been very impressive.

The finest example of propylaea, that of Athens, is planned on a magnificent scale. The magnificence with which the mere gatehouse was designed shows very well the splendour of the whole arrangement. These great propylaea have been considerably restored in recent years. The columns have been re-erected, and the whole of the west front has been reconstructed. On the whole, it has been very well done. Another example of propylaea of a later type was dedicated to Athena at Pergamon, and it is a good example of the rich architecture of a later time. But it has not anything like the splendour of the earlier examples. There is much about it which anticipates the kind of work which was done later in Rome and elsewhere.

There are some structures which are more political and social. Such is the agora at Assos, where the country is very hilly and therefore much terracing necessary. The structures are intended to provide accommodation rather for political and commercial purposes in this great market place, which is the centre of life in the town. A restoration of it shows open spaces bordered by double porticoes, terraced up considerably, with an ornamental gateway leading in, and a covered building, which is the Senate-house, opening out. We do not know much about the arrangements inside that. But one can realise how, in prosperous towns in Asia Minor, there was a market place surrounded by a colonnade, which was a resort for the citizens for social and political purposes. The people lived much in the open air, and room and shelter had to be provided for them in the various public buildings.

There is nothing left of the arrangement of the early market place in Athens ; there are the remains of only a Roman market place. There is a Doric portico, which reminds us very much of the portico at Euston Station; it is the entrance of the great market place, of which other portions have been recovered. It consisted of a court with a colonnade all round it, and it could be frequented by those who wished to buy or sell. The gate was set up in the time of Augustus. The market place of Megalopolis forms a complex of buildings with a theatre. The theatre faces the North, and adjoining it is a great square building nearly 200 feet square, with a curious arrangement of columns. Every row of columns radiates from a centre, except in one case, where there is a rather different arrangement. This is the place described by Pausanias as the Parliament House of the Ten Thousand Arcadians. It was calculated by M. R. S. Weir, who drew out the plans, that it would hold 10,000 people standing, but that if they were seated the number would be less. It slopes upwards from the centre in all directions, and each of the rows of columns is on a level, more or less, but each is a considerable height above the one before, so there is a steady slope upwards ; therefore it is essentially of the nature of a theatre. This is an original design for a

GREEK PUBLIC BUILDINGS

Parliament House, which may have been suggested by a great hall, like the Hall of the Hundred Columns at Persepolis. Here the arrangement is such that a man placed in the middle could be seen and heard by people in every part of the building, without more space than was necessary being blocked by the supports of the roof. And it has been suggested that above the row where alternate columns are a later addition, there might have been a clerestorey later. I do not think this building has received the attention from architects that it deserves. It would be interesting to see a conjectural restoration of it.

Another building for small assemblies at Priene is a theatre-like building, with an altar in the midst, doubtless for religious ceremonies, such as at the opening meeting of the Ecclesia.

A common feature of the market places and buildings is the presence of porticoes. At Athens there were many such, including the painted stoa, from which the Stoicks took their name. The stoa of Philip at Megalopolis is a treble portico and affords much room for meetings ; it was a kind of Exchange ; and there are exedrae for quieter conversation. At the two ends there are projections forming a nave with two aisles, making an arrangement very much like the basilica. The basilica is a form which was probably derived from Greece ; originally, probably, it was applied to the Stoa Basileios at Athens. In the stoa of Philip there are two rows of internal columns, giving a large area, which is the essential feature of such porticoes, and is a very important part of the agora of Greek cities. A restoration of the portico at Megalopolis shows Doric columns on the outside, Ionic on the inside.

One more building, of which, I think, no stone exists, has been reconstructed from the specifications which have been preserved. It was the custom of the Greeks, when they gave out a contract for a building, to have the specification cut in stone or marble. We have the specification of this building, so it could be erected to-morrow, with every detail which could be prescribed. It was the great building at Piraeus for ships' stores. There is a long hall, with pillars on the two sides. At the two sides shelves were placed where the cables and so on could be stored, so that any citizen walking through this building could see that the Athenian Admiralty was not starving the ships of supplies, and hence it was an excellent safeguard for democratic government.

An example of wrestling schools shows an open courtyard surrounded by porticoes for spectators, and other rooms in side buildings, and there is a plunge-bath, and so on. The stadium at Delphi has the seats still left, at the curved end where the races finished and, probably, the wrestling took place. The stadium at Athens has had the seats restored in marble.

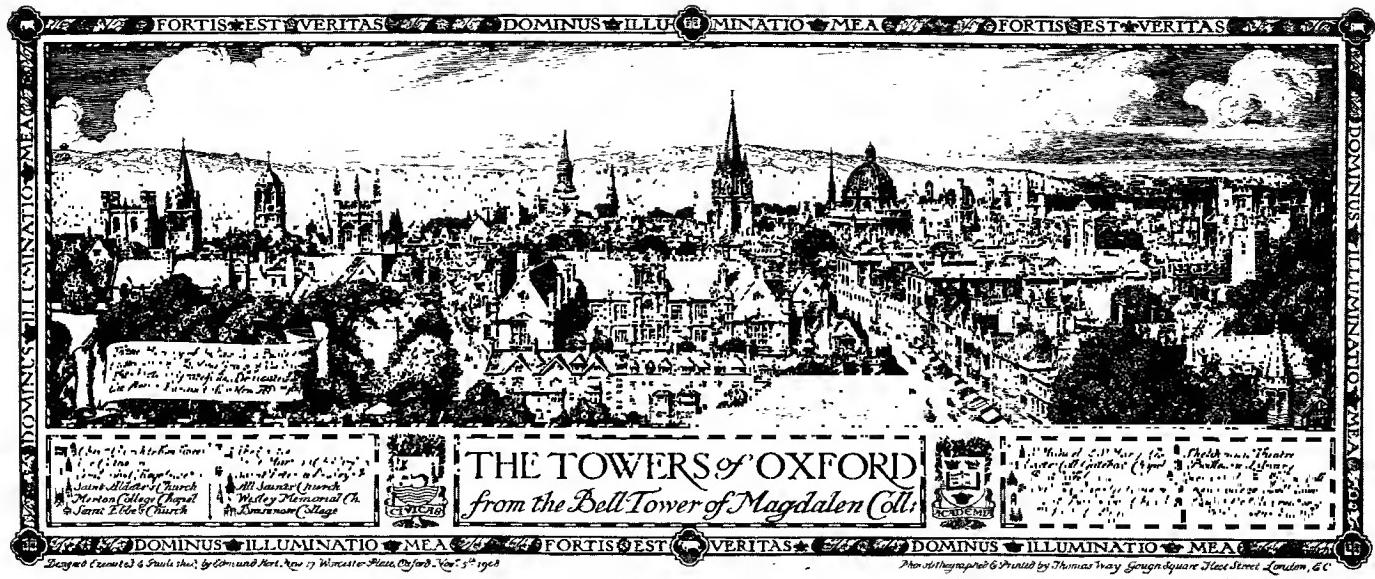
To come to the theatres, it is impossible to speak of the arrangement of the theatre now, but I would point out the general lines and the character of these theatres, which were intended as buildings not only for dramatic purposes, but for general assemblies of the people. We know from inscriptions that the theatre was a place of common meeting for political purposes, and it was admirably adapted for this. The most beautiful of the theatres, that at Epidaurus, shows the complete circle for the orchestra, the slope of the seats, and the ramps leading up to the stage. These buildings have the most perfect acoustic properties ; in this theatre it is possible, when standing in the orchestra, to make people all over the theatre hear without speaking any louder than an ordinary conversational voice. A theatre like that at Priene, with the stage supported by a column front, gives you a good notion of the general appearance of a Greek theatre in later times. An example of a small theatre is the Odeum at Athens, which is adapted to musical plays or to musical performances.

Finally, there are a few examples of public buildings of another sort ; such as libraries. In a library the requirements were different from ours. It was an open court, with a portico round it, and niches, in which could be placed shelves, and there the volumes could be stored. Rolls would be kept in baskets. One has recently been excavated at Ephesus. A similar library was found at Pergamon. It consists of a series of courts and rooms, which doubtless were used for the storage of books.

Another kind of public building is connected with fountains and aqueducts ; the latter were not architectural features, but there were ornamental fountain houses, and on vases are represented girls fetching water in pitchers from the sacred fountain of Callirhoe. A fountain could also be used for bathing. One at Corinth was excavated by the Americans, with storage rooms behind and columns in front. We have also in Athens a clock tower, which had a weather-cock on top, and is a good example of a public building of a later time. A good example of a reconstructed monument is the lion at Chaeronea, which was set up over the remains of the Theban sacred band, and is a worthy monument to them.

This is only a miscellaneous collection of the public buildings of Greece, but it will perhaps serve to show you the great variety of work which can be included under the title of "Greek Public Buildings."

The restorations of public buildings at Pergamon, here given as illustrations, are taken, by kind permission of the authors, from MM. Pontremoli and Collignon's magnificent publication, *Pergame*. This work is based partly on the published results of the German excavations, partly upon personal study on the site. While the great official German publication offers a complete archaeological discussion of the results of the German expedition, in this volume there are found, in a most attractive and convenient form, the main artistic records of this magnificent Hellenistic city.



THE TOWERS OF OXFORD

Oxford : A School of Architecture

BY HUBERT C. CORLETTE [F], WITH REPRODUCTIONS FROM E. H. NEW'S PRINTS.

Mr. Edmund Hort New has provided modern Oxford with a valuable contribution to its literary productions. It is at once a commentary, an example, and a warning. But it is more. It is a fine instance of what a fine art can do to suggest regret and stimulate hope. In his drawings of Oxford Mr. New allows us to compare what has been with what is. And if we are tempted to regret what might have been we can at least look forward and urge Oxford to reform.

Every Oxford man may resent the suggestion of reform. But Oxford, because of her position in the affections of those who have experienced her nurture, and who realise the value of her influence, will perhaps suffer kindly the appreciation of all who respect her values and are jealous of her possessions and of her power. She is not, never was, and never can become, a city in isolation. She belongs not to Oxford men, not to the Nation, but to the whole Empire. And that her influence has done much to make, and is doing more to bind that Empire into one is proved by Rhodes' opinions, and Rhodes' bequest, and by the presence of the Rhodes scholars from the Dominions in her midst.

Mr. New has presented to the Royal Institute of British Architects a set of his beautiful drawings of the Oxford Colleges and Buildings. That part of Oxford which he shows us in these drawings he does not idealise. It is not necessary to do so, for what he has drawn is so full of a fine ideal. But there is much that is

ideal in the selection of his points of view ; in the conception and design, in the treatment of each subject ; and in the real mastery of large handling, true drawing, and admirable detail, by which he carries on and completes the purpose he has evidently in mind.

I have suggested that these drawings are literary productions. Is not a fine drawing or design at least a very near relative of good verse or prose ? It is true no words are used. But we can think of songs without words, of symphonic poems, tragedies in sound, verse in form as well as form in verse. And there is little reason to disbelieve in the possibilities of an epic in clean lines, broad surfaces, great masses, and exquisite proportions. It is this use of line that makes these drawings appeal to all who admire the good things that art can do. But when line, and even colour suggested by, black lines, is used to explain, describe, and exhibit some of the great masterpieces of a sister art, we can welcome line and dispense with words. They disturb us often when we desire silence and freedom to enjoy things which they cannot define. Architecture is one of those things. And though our first glimmerings of appreciation in the arts receive some impulse from words, when they try to help us to realise the values in things, they should in true art be as much concerned with things as with ideas. For ideas if alienated from realities are loosed from their landings, cut off from the shores of life, and cast adrift on the open seas of windy motion, and unsteady turbulence.

OXFORD : A SCHOOL OF ARCHITECTURE

If then we can read words into lines that are not letters, and see volumes in built books that have no bindings, no leaves, and not a jot of ink, we are on the way to some elementary discoveries in architecture and her allies among the arts.

Every fine building, even without historical associations, is an epic ; each building shown in these drawings is one ; each College group is another ; and the whole series is a greater one, an epic of Oxford ; but this last is part of the story of a nation told in stone.

There is full evidence of an architectural conception in Mr. New's work as drawings which are the result of design. And in exhibiting with admirable reticence this power of design his work is effective as a fine art in itself without a parade of artifice or any undue exhibition of technical devising.

While using design to make, and create, these drawings the artist has not in any degree lost sight of the architectural form and qualities, and the characteristic "figure" and rhythm, so abundantly expressed in differences of detail, which have been used to illustrate or explain, illuminate or define, this form. The nature, kind, and quality, and also the characteristic surface texture, of the various materials used in building is also admirably expressed. The drawings, and the engravings and reprints from them so well done by Mr. Emery Walker, speak for themselves. They show what excellence of architectural draughtsmanship in line can be, and should do. And they show what is true, that architecture can only be well drawn by those who know what good architecture is : for the method of drawing respects convention without being dull. And it is formal, as the subjects and their treatment require, without becoming stiff or unsympathetic.

But an invitation to review these many volumes, each printed on one single sheet, when addressed to an architect, must mean that he is expected to say something of what he thinks, from a personal standpoint perhaps, of the subjects with which they are concerned, as well as of the method and manner by which they are presented.

Every subject chosen is peculiarly attractive and each has some special difference that is instructive and invites attention. As a group the whole set of subjects passes before the eyes as in review, a complete theme. That theme is surely, in a few words, Oxford : a School of Architecture, as it may be known in its University and Collegiate buildings. Most of these buildings are essentially, entirely English in every trait and turn of character. Some, though used for English purposes, are obviously Italian in detail and largely so in form or general character. If the theme is architecture we must look at these buildings architecturally. If it were archæology the point of view would become one concerned with history, dates and details, and historical causes of historical change. This latter aspect is important and it

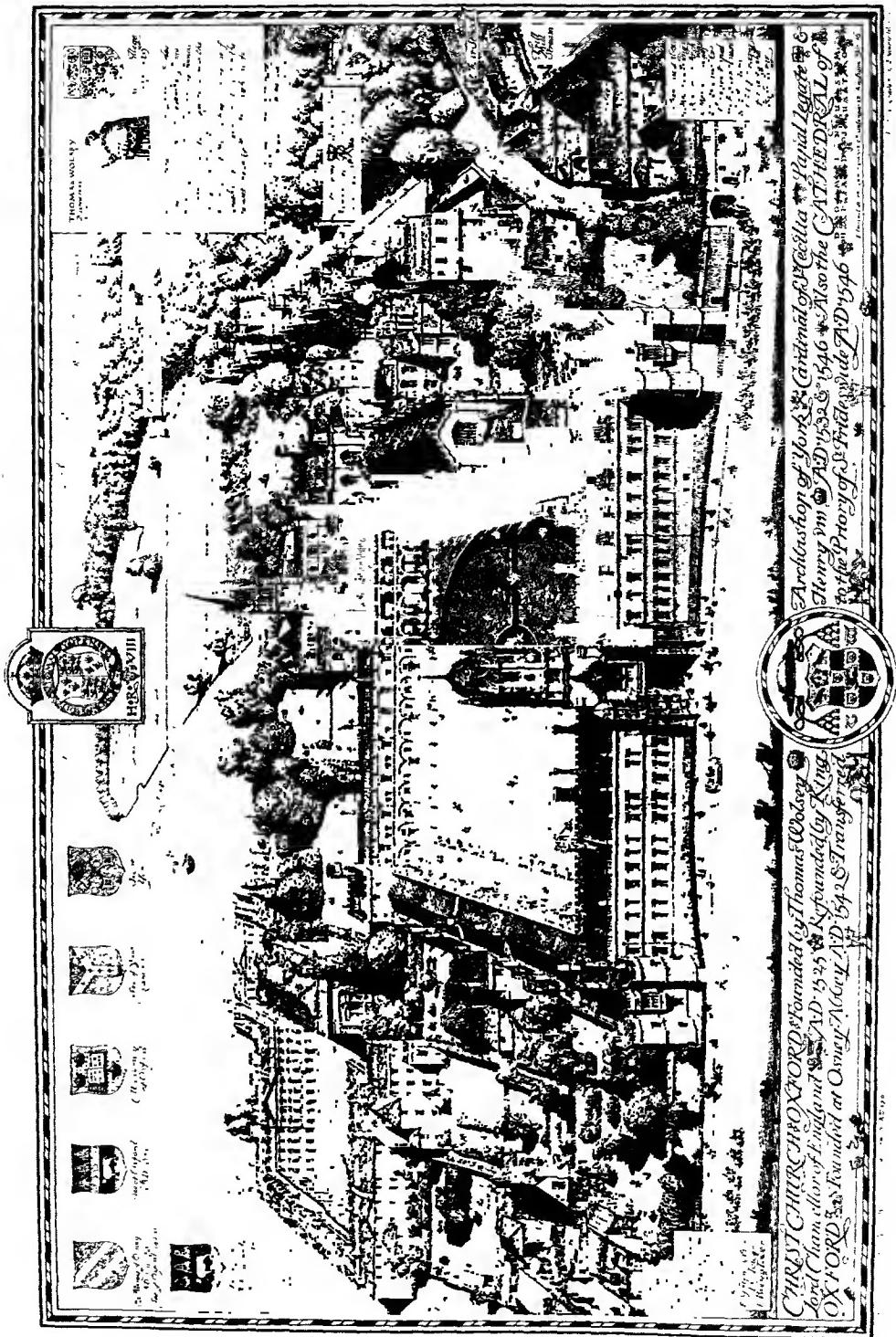
can be examined in a compact and introductory form in a book on "Oxford and its Colleges." This volume has many illustrations and general plans by Mr. New.

A consideration of architecture in relation to general history is necessary if an architect would fully enter into the meaning of his art. He may see what influences helped it to survive among many social and political changes. Or he may find reasons for a relatively sudden arrest of traditional usages and the introduction of a new form and character which would, without some history, be unexplained. With him such an interest in history will widen his outlook. There can, however, be no doubt that his first concern is the study of construction and plan as the foundation of all traditional design, as it should be of all modern practice. And it may be said that a University School of History that does not include a real and effective examination of architectural records and evidences must be depriving its students of valuable material. Few problems of history in their larger and deeper aspects can be adequately followed or explained without sound knowledge of such evidence.

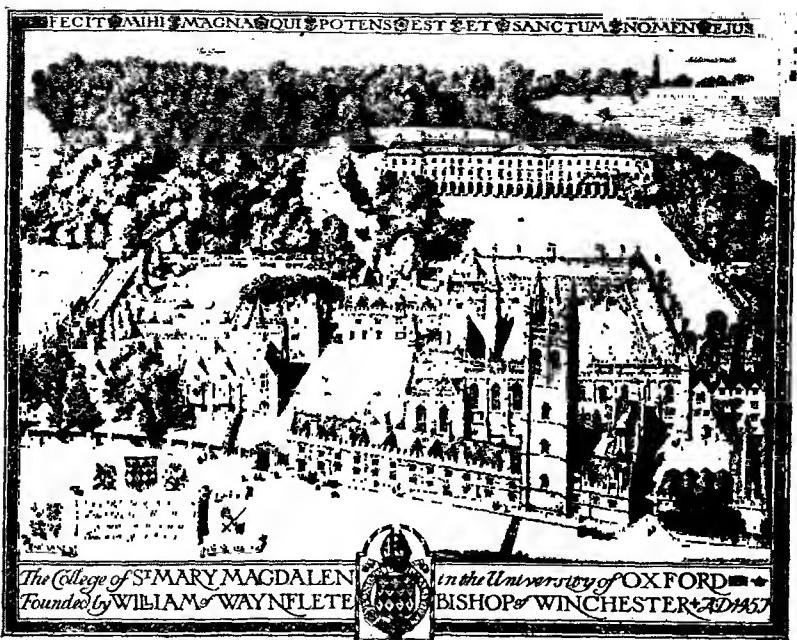
Perhaps the most interesting thing to observe about these buildings is that most of them were produced as a result of the operation of the thoroughly English, the only really national, and the truly virile, Gothic tradition. They are indigenous of the soil and of the blood. Others are exotic, foreign. In these last we see the result of book scholarship supplanting the native craftsmen's fine scholarship in things, not words, or illustrations. The one was the product of an almost immemorial, national, working, tradition ; the other is the produce of wanderers who on their return from abroad applied the architectural merchandise of Italy to English buildings. In the end this patronage, which demanded the supply of foreign goods, suppressed, and all but killed, that tradition which these English buildings retain as remnants, reminders, of what might have been had its career continued.

In both schools, the national, and the Italian tradition, there is undoubted beauty. But that which is native has, and will continue to have, always a more direct appeal to, and receive a more intimate response from, the Gothic nature and mind of Englishmen.

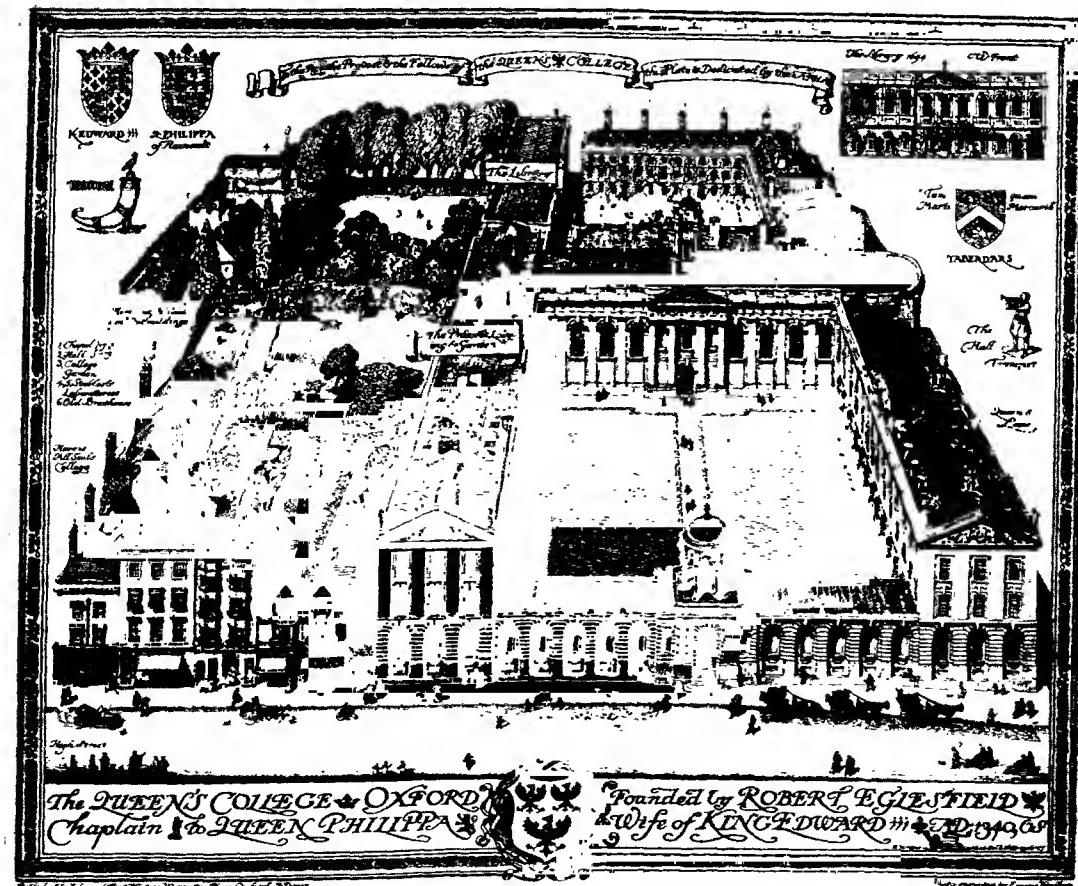
Of the buildings in the Italian manner the most important and complete are Queen's College, the Radcliffe, Sheldonian, and the Clarendon buildings ; the New Buildings of Magdalen, and also the Chapel of Trinity College, and the Peckwater Quadrangle of Christ Church. All the other buildings, we may say, are English and of a markedly Gothic character. In minor parts of their form, and in some interesting touches of decorative feeling, those of a later date among them show an Italian influence which adds variety and speaks of their history. The two schools of building cannot be compared. They are a valuable contrast. And they



CHRIST CHURCH



THE COLLEGE OF ST. MARY MAGDALEN



QUEEN'S COLLEGE

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

give occasion for reflection. The differences are to be observed as well in their form as in the character of their carved and moulded details.

If we examine the Italian buildings we see a fixed, and sometimes a tendency to a rather hard, and forced, regularity. A balance of form is frequently desirable in the handling of the architectural masses and main features of a building; but too much insistence on this balance can often result in a rather repellent stiffness. And form can thus become formalism when repeated repetition is used as a refuge of dullness and shows a lack of versatility.

There is a fine unity of design in the structural masses of Queen's College. The outlines are simple and varied and the roof lines admirably severe. Repetition as it has been used here aids the feeling of unity, though it seems at times to want variety. But this need for variety is to some extent supplied in the front towards the High Street by change in the centre and on the wings. And in the front inside the Quadrangle which looks south towards the street the same need is met by adapting a Roman Basilican, or Temple, portico to make it serve in an English situation.

The Radcliffe Library is a good example of Italian form and outline. And in the general scale of its parts, the feeling of proportion, of subordination, carefully controlled as between the parts and the decorative additions applied to them, there is a fine sense of dignity. It would be interesting if we could know how the Gothic builders might have treated a building of this kind. But if its general form followed that, for instance, of the Chapter House at York, or at Westminster, we may be quite sure that they would have considered the practical purpose of the building, and its plan, first. And they would then have allowed structure to develop its main outlines, and all details of form would have been kept subservient to function. It would in no case have been either like a Chapter House or a Church for it would have been made to be true to, and compelled to express, its purpose in absolute freedom of form and detail. It would have been, and it would have looked like, nothing else but a library building. It could have been, and no doubt would have been, if necessary, quite Gothic without tracery, or cusp, or pointed and moulded arches. For the Gothic houses of the sixteenth and seventeenth centuries in England showed what Gothic thought could do in architectural design without any of these structural or accidental characteristics peculiar to certain periods of its growth. It cannot be too often repeated that the real Gothicness of Gothic art is to be seen in its leading ideas, its structure and its form, and not in the elaborations of the essential parts that a free and a fanciful imagination was pleased to play upon. Shakespeare, the greatest Gothic artist of the world, does not quite definitely answer one of his own questions. But it may be true to say that

fancy is born in the heart; bred in the head, and engendered in vision. With him it was kept in a subordinate place and seldom allowed to usurp the structural element, the essential plot, of any play in his designs.

In looking at the contrasts between the Italian and the Gothic Buildings in Oxford there is one marked difference to be seen. The case is not the same in all Italian buildings as contrasted with those of the northern schools. But here, almost without exception, the wall surfaces of the southern school depend for variety upon the use of applied ornament, of features that are not functional. They consist, as a rule, of elements that in their origin were structural and properly functional. Scholarship, or what has passed for scholarship, and is often really a tradition of borrowing, brought these elements in books from Italy. It put them on the surfaces of the walls and called it design. The method is often very effective. But it is rather lacking in practical sense and is not always quite satisfying, or quite well done, although Italian rules and regulations are generally followed very strictly in the effort. And, moreover, it is costly as compared with the Gothic method. If we look at the Gothic wall surfaces in Oxford we shall see that they are almost invariably kept as one broad single idea of unity. They are not subdivided into horizontal compartments by too emphatic lines, by strong alterations of form, or by a difference in the character of their surfaces, whether by changes in the kind of material or in their texture. Gothic texture was seldom, if ever, artificially imposed as the Italian was. It was not the result of so much conscious effort. And it was always the result of a skilled craftsmanship required in the shaping or building of the materials to fit their wall positions. Or it arose naturally out of the structure and quality of the materials themselves which were used.

Further, the decorative elements of architectural form are not, as a rule, in Gothic work, in the nature of added features of detail. But they grow easily out of the structural parts, or, they arise from the practical requirements of a plan like the windows and doorways.

This difference is suggestive to those who would appreciate the peculiarities of method used by these two schools. And it may in time convey ideas to those concerned with creative efforts in building. Some of the Venetian palaces of the sixteenth century may be regarded as an extreme example of how decoration was applied to the front of a building, like a screen added to the surface of the essential, structural, form. It was a composition, made up out of columns and other items which originated as functional members in Greek buildings. The Italians of the Renaissance derived them by means of an archaeological translation from Republican and Imperial Rome. In some of the English Italian buildings this kind of compilation was almost entirely eliminated with very satisfactory re-

OXFORD : A SCHOOL OF ARCHITECTURE

sults. Inigo Jones used a studied restraint at Coleshill, in Berkshire. But in Whitehall he followed the Venetians more closely, with a fine sense of scale and proportion and a quite interesting modification of the same elements though with a different method of repeating them to suit his frontage.

Possibly modern thought in architecture will before long begin to derive more suggestive principles from the Gothic builders. It could discard without great loss, and with economy in cost, much of the Italian sense of applied ornament in the shape of columns large and small, little pediments, surface architrave and arch mouldings, and a multiplication of cornices long and short. And instead of these devices it could resort to a more architectural, a craftsman's, method rather than the draughtsman's and decorative painter's system which has been considered. Such a process of elimination would leave more plain wall surfaces. Windows and doorways would then be, themselves, the things which might call for fresh enterprise in design to give them variety and beauty in shape, in size, and in scale.

On them there would be a legitimate field for the exercise of every delicate and decorative ingenuity by the vigorous skill of a native craftsmanship. To dispense with the Italian applied ornament would provide a new and greater opportunity for the use of really impressive sculpture, architecturally considered, instead of an often dull repetition of moulded lines, which, frequently, produce no real architectural result when used with a rather indiscriminate profusion.

There can be little doubt that the English architecture of Oxford, as contrasted with its Italian examples, suggests these points of view. For we can see with what real and masterly power Inigo Jones followed these Gothic principles in his essentially Gothic design of the garden front of St. John's College. An interesting application of the same principles is to be seen in the admirable street front of Christ Church. The principles are seen in the balance of the masses ; change in the locality of interest from the centre to the wings ; repetition among the minor, and in this case structural, or planning, features ; and in a studied variety given both to the method and to the manner of using decorative detail. All these principles are observed, and duly subordinated, in their relation to the main architectural idea in its outline and form. There is rest in the long lines without severity ; and there is a judicious reserve of capacity expressed in the decision with which the wall surface is allowed to keep quiet while imagination takes its exercise elsewhere. As a consequence we are able to read a much more effective and attractive expression of fine character in the whole conception.

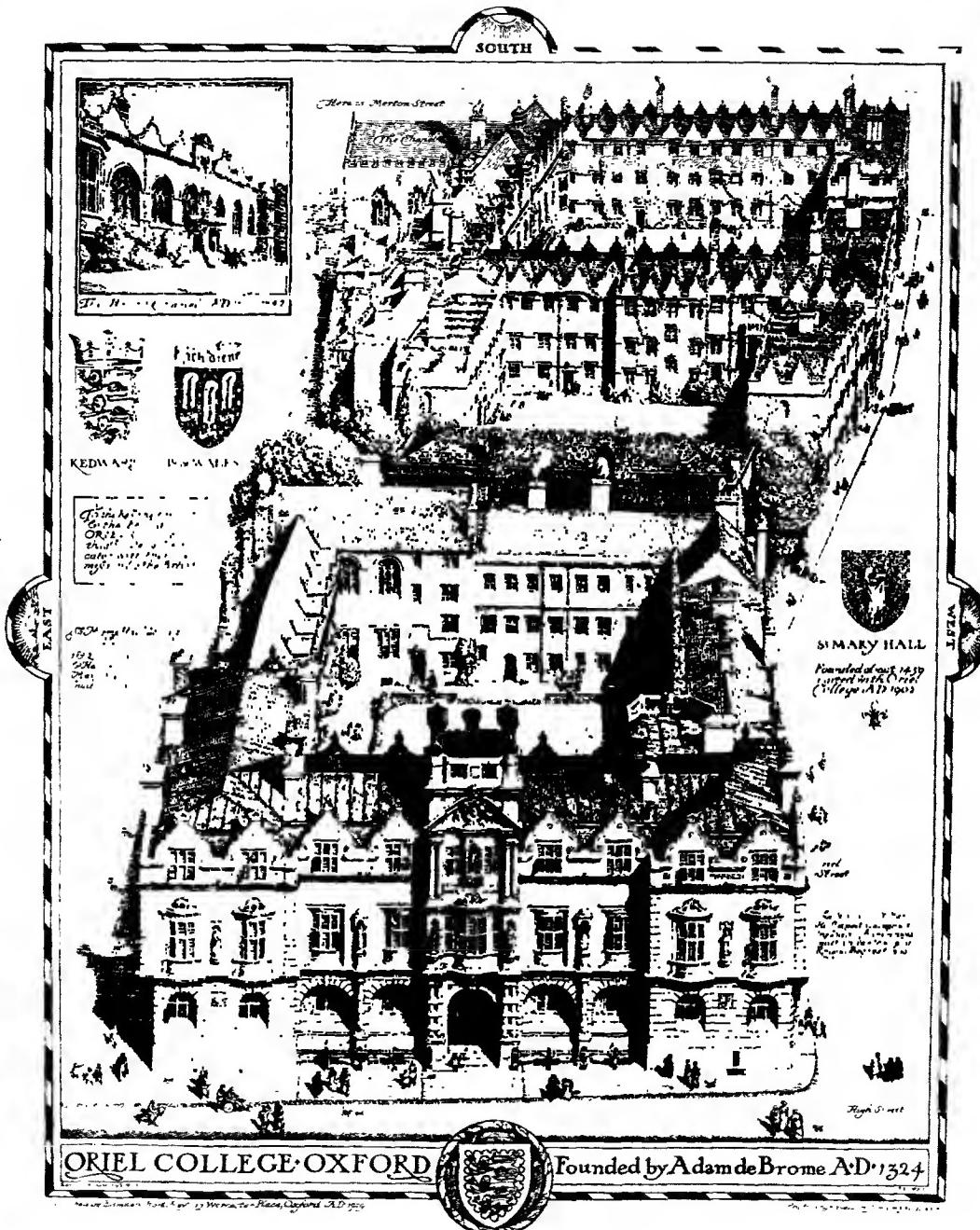
That it is possible for these same principles to be applied with success in modern, and quite practical,

buildings Oxford has proved. For the dexterity of thought required, the fine feeling of restraint, rhythm, scale, repose, and emphasis is to be seen in the new High Street front of Brasenose. There the power of balance without rigid symmetry is used in a manner that commands a quick response of appreciation.

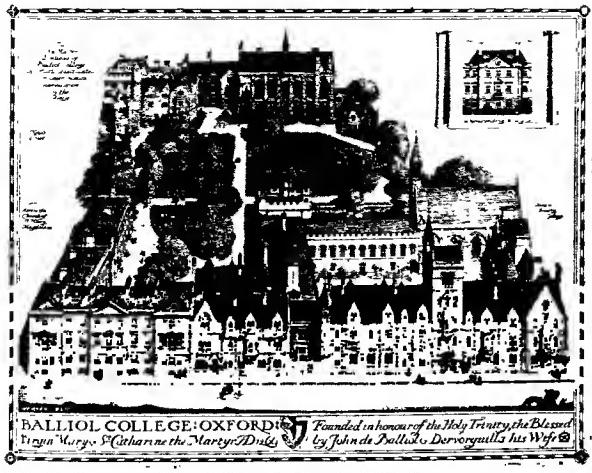
The other, and earlier, buildings of a Gothic character give instances of the same application of a leading principle, basing design on structure and plan, but, not on preconceived ideas of surface decoration. They use the principle as a ruling principle, but forcible, flexible, and free. And they do not suffer from it as a fixed, stiff, and utterly compelling law, requiring inevitable obedience to the letter, without the easy spirit of a lively symmetry in occasional repetition, and, of a responsive, satisfying rhythm. They make, in fact, fine art live by fine sense, sound construction the cause of fine building, and a practical usefulness the excuse for producing things of a lasting and energetic beauty.

I have ventured to use the word reform in connection with Oxford. In doing so no man is really rash, for he follows good precedent and example set by Oxford and by Oxford men. Oxford is, without doubt, the home of great causes. She may hold and stand for all that is good in the past. But she also keeps that good for the benefit of the future. And if she does stay with the past she lives by the present and prepares for what is coming. By her action, or rather inaction, as a city in the days that are gone she has laid herself open to a fair, if keen, but friendly criticism. And to all who think, and believe they can prove, that in her buildings there is a power she should cultivate more, and use better on behalf of the civilization of nations yet unborn, it is clear that she has not made the most of the legacy England bequeathed to her charge.

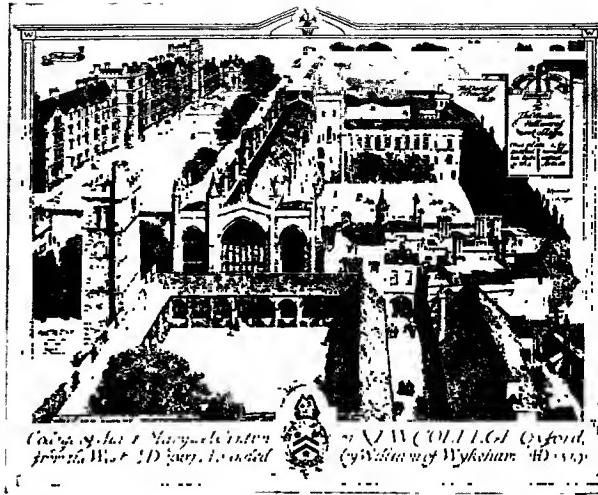
It was a legacy of Englishmen long dead ; but it was, and is, a bequest for Englishmen who are still to come. If she has saved some of it she has done well. And it is surely a permissible regret that she has done so little of what could have been done if the example of her benefactors had been more regarded and more imitated. That example gave her some of the finest Collegiate buildings in the world. They are the beginnings of a City beautiful. And she has rested content with these treasures without sufficiently putting their teaching out to a profitable usury. She has been so much absorbed, impressed, with the beauties within the seclusion, almost the exclusiveness, of her inner Sanctuaries, her Quadrangles, her Common Rooms, her Chapels and her Halls, that she has had no eye for the clamour in her lengthening streets. She has not sufficiently watched the uncultivated growth of her body municipal in bricks ; the dearth of a healthy civic pride ; the ugly expansion of her city borders ; and the uncouth character in her pretentious villas.



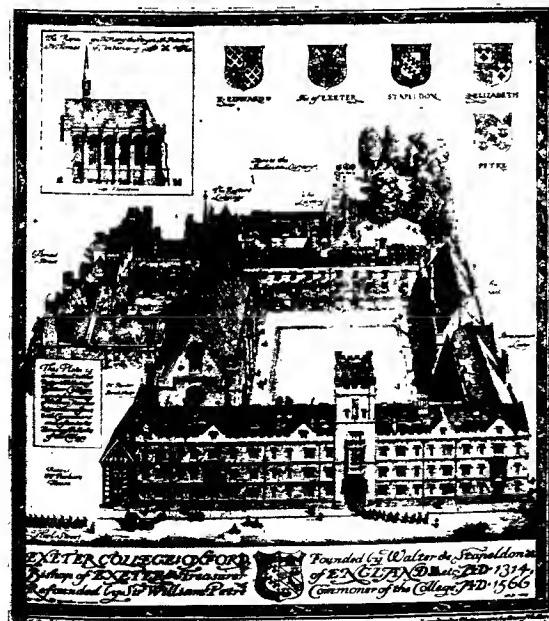
ORIEL COLLEGE



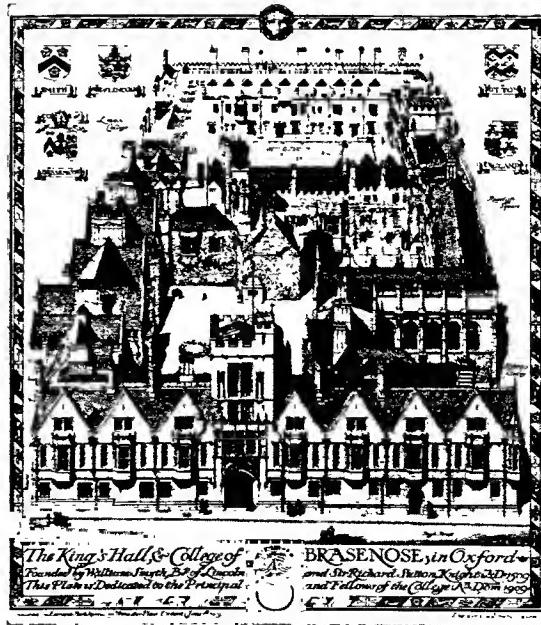
BALLIOL COLLEGE



NEW COLLEGE



EXETER COLLEGE



THE KING'S HALL AND COLLEGE OF BRASENOSE

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

It may be thought that all this has little, nothing, to do with the beauties to be seen in the College precincts of Oxford. It has everything to do with them. It is but to suggest a comparison of what is with what might have been. For these precincts show appreciations of order, of design, of planning, for future occupation and use; and of the need for educating one generation for the good of the next. Have these ideas, these principles, been held continually in mind by Oxford and Oxford men generally? Certainly not. For if they had been we should not see, through the length and breadth of England to-day, so many, and such glaring, such culpable, evidences of their neglect. If public men had been taught by Oxford, during their residence with her, all that was needed and could easily have been known, they would in their after careers have been able to see, with opened eyes, what Wren, one of Oxford's most brilliant sons, tried in vain to impress upon the London authorities of his great architectural days. Oxford as a city has never been planned as a whole in anticipation of future development. And, by an architectural realisation of what a city might be made to become, it is not necessary, it is not desirable, to suppose that something grandiose, something involving a great expenditure of public monies on unnecessary vagaries, is suggested. To plan a city is no more than to plan a college or devise a house. Planning, or devising, means no more than a modest, common-sense, provision that looks before and thinks of after. It provides for the practical needs of occupiers, both of single houses and great groups of public buildings, of vast masses of accumulated men busy with their own affairs. And those individual affairs are, if seen by a wide awakened vision, no more than the one affair of the nation in the gross. Wren's foresight, and our own present difficulty about arterial roads to, in, and through London, are an illustration of what ignorance can do by neglecting the suggestions of those who know, and who see, what the future means, and how its needs may be met by the design, by a common-sense provision, of some plan.

Let us think for a little of the importance to the Empire of a just appreciation of the facts of order, of design, not alone in private dwellings, public buildings, or Collegiate and University Corporations, but, in the cities of the future overseas. Is it not just to surmise that the Rhodes scholars, for example, might be better citizens and better directors, leaders, of national thought among the growing, the fast expanding cities of the Dominions overseas if they were taught to realise, and could teach others to realise, how great were their opportunities, and their responsibilities, in this respect? Are the Cities overseas to be content to follow England's bad example in permitting, not the growth, but the unkempt accumulation of wrangling

buildings, riotous streets, and rotten slums that we possess and some are ashamed to see? They need not be taught to believe that a rigid formal rule should control all ideas of a city growth. If they were taught thus they would revolt against the thought that no freedom, but only a strict dogmatism, should govern all ideas of plan. Up to a certain point the planning of new areas to foresee the possible future development and distribution of populations, and their building or traffic requirements, can be quite flexible. And flexible they should be. But the use, the application, of a flexible principle is something gained. The disregard of all principle is everything lost, whether we apply the thought either to Constitution making or to the creation of healthy practical conditions for providing new countries with clean, useful, and easily usable, villages, towns, or metropolitan cities.

Through all the stormy period of her career Oxford has done so much for England that it may seem ungenerous to cavil because she has not done more. But architecture has done so much for her that it may hope for more from her. It gave her these Colleges and they are her several homes. They are, in a very large degree, Oxford herself in her outward semblances. And it is because of this that all architects, wherever in the wide world they are, have lived, at one time or other, mentally in Oxford. They claim her as one of the many refuges they have, one of the multitude of homes to which they resort for inspiration, for consolation, and, for hope. She has part in their ambitions because she, in no small degree, can contribute so much to the satisfaction of their ideals, and help so far towards the realisation of their dreams. For dreams they do have because they, being practical men, as well as men who search for ideas, know that they like nations are dead, and deadly, if they have no vision. And it is vision that a knowledge of Oxford and her buildings helps to supply them with.

If some of these considerations of the use and purpose of architecture are sound, as I believe they are, can it be said that they concern, or might concern, Oxford in any peculiar way? That is my belief. For, if a Chair of Architecture were founded in Oxford surely it would be an event of more than local significance. It might easily become an enterprise of quite Imperial moment. It could be so arranged that it became part of the general University curriculum in Arts, a fraction of a large and liberal education. But it could, without interfering with this province of a University life, provide the beginning, only, of that part of instruction that a man would need to fit him for the deeper investigations he would require for his full equipment, before he could follow a professional career. This would be to do for architecture, and indeed for the other arts since they are all allied with architecture, just so much as, and no more than, is done for those who are to follow the paths of

OXFORD : A SCHOOL OF ARCHITECTURE

literature or law, science or theology, or any different sphere of life. Such a Chair would, too, react on the Public Schools. For it would help to show that, as architecture means a knowledge of, a learning in, the importance of ideas in things, as well as in thought to be read by words in books, so these schools would begin to find that all boys are not made alike. And it would show that if an activity of mind cannot be induced in some by verbs it can be by visible and tangible realities better than by the abstractions, additions, or distractions, of thought not allied with things. Shakespeare spoke of this to all Englishmen three hundred years ago when he said there were sermons in stones, books in the running brooks, and that something good to know was to be found in everything. This, too, was the text which Bacon knew and used. And it is the text of all modern science, all ancient and modern art, except that which begins and ends in a scholarship of verbs alone. Painting derives ideas from things. Sculpture gives things ideas. Architecture collects the ideas of nations and embodies them in things. Literature uses ideas to illustrate things, and philosophy makes use of things to find ideas. And all these, in touching things, would give them a sense of life, make nature live again, and keep all the world alive, by thought.

The idea is sometimes in the thing, and things are the parent of all ideas, for without things we cannot conceive ideas. All ideals are known and shown by things. Greek mythology was a fable of created things; and in it is to be found the cause of those ideas and things which Greek art presented in tragedy, and in that great built epic of Athena Parthenos on the sacred hill of Attica.

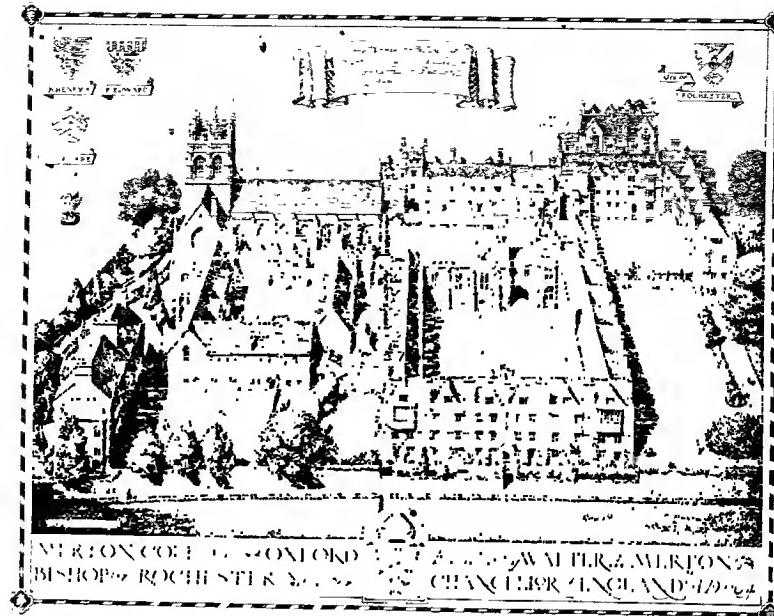
Gothic mystery was not always mysticism. For mysticism is a vapour. But mystery may be, and often is, truth, clean and clear, able to refresh, and ready to sustain life in thought, and thought in life by the aid of things. If the mystery of life that Gothic art displayed to the light of day, in fabrics of stone, suffered confusion under the misconceptions of some who directed mediæval thought, that is no argument by which to belie the facts of truth in mystery if sometimes misapplied. Those fabrics of such mysterious and beautiful power were built in, on, and by, the hard realities of a practical reason. In them imagination was using reason, and reason was aiding imagination. Both these faculties have been coupled together in the methods of modern science to find discoveries in the physical, as art has sought them, and found them, in a metaphysical realm. Both tried experiments, and both found added power by the means they used.

In true building there is, and must be, evidence of science without display. And the fine art of it, though always evident, should never be too much in evidence. The retiring modesty of all great art, that lives by

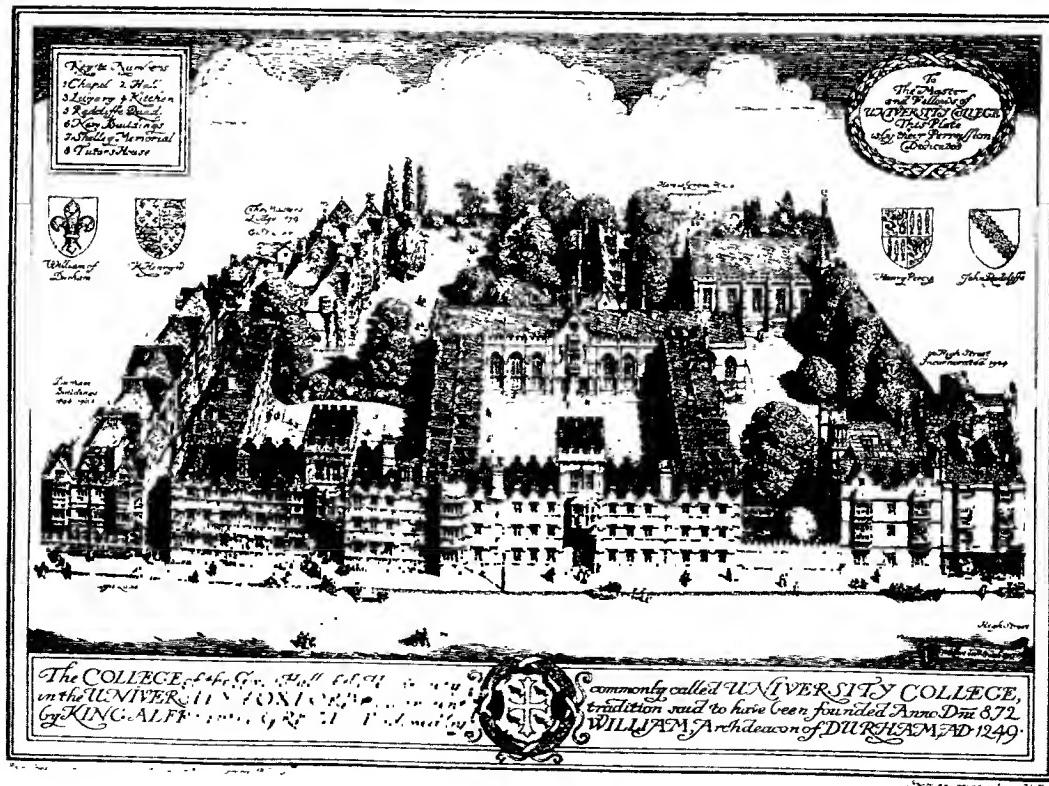
scientific power, is always, in itself, a quiet invitation to a closer intimacy. Fine art is never brazen and it never brags. It neither mocks nor mimics nature. And though it is full of the real depths of knowledge it is never a display, a parade, of personal learning. What is individual in its authorship is hidden in the strength and power of its universal appeal.

It might be suggested that a School of Architecture in Oxford would have little interest for, and add little to, the outlook of those whose time was given, particularly, to other schools. Need this necessarily be so? Could it not be shown that an architectural attitude of mind was of value to those concerned with politics and law, literature and science, mathematics, astronomy, and music? An astronomer would find nothing in architecture to teach him more definite conceptions of the unalterable principles of order and of law, or of the operation of Mind controlling these. He meets design in his own pursuit every day. But he would be no loser in his knowledge of man's province, and powers, if he were able to perceive how the principles of design could be applied by human effort. It is doubtless evident that in Wren's work as an architect his power to grasp large principles of design in structure, form, and subordination, was aided by what he knew of arrangement in unlimited space. And his wide imagination, if it did sail abroad in the seas of space, was anchored in the stones, and took visible shape in the dome, of St. Paul's Cathedral. Music is an allied art subject to structure and design, form and "figure." It uses scale as well as "scales." And its use of an idea, developed with harmony, variety, and rhythm, is imagined sound; as architecture is imagined form, caught and held by mind. One art is always better known by some knowledge of another. Science in its various branches is occupied with structure and function. It studies these for useful purposes, finds law, sees design, and discovers Mind. And, when it rises to look at large results, observes architecture expressed in universal terms. And as for politics and law! Roman law is a Roman architecture in jurisprudence. Our Common Law is a Gothic architecture in a Gothic legal tradition. Both are based on a constructive growth of thought used in liberty and controlled in freedom. And the English Constitution is as Gothic as all Gothic art; as flexible and as free; subject to no written restrictions; knowing no limit to its growth, vitality and power; and is as easily used for great or small occasions to meet every human need or design.

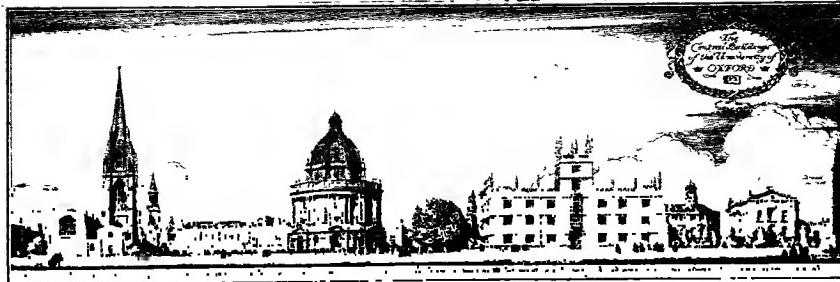
If there is any desire, any actual need, to consider art in relation to philosophy, as an educational exercise by which to train a faculty of mind as part of a university curriculum, that relation can be best approached through a knowledge of architecture. Instruction in the essential factors of art must precede the education of a capacity to use that instruction



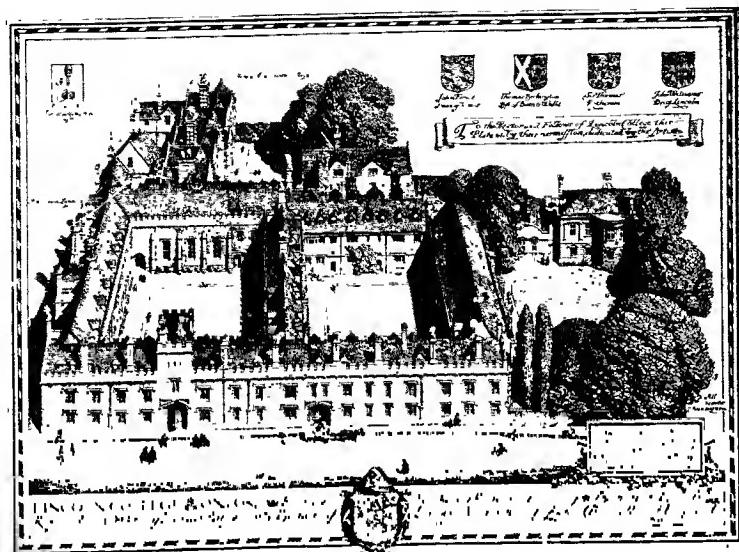
MERTON COLLEGE



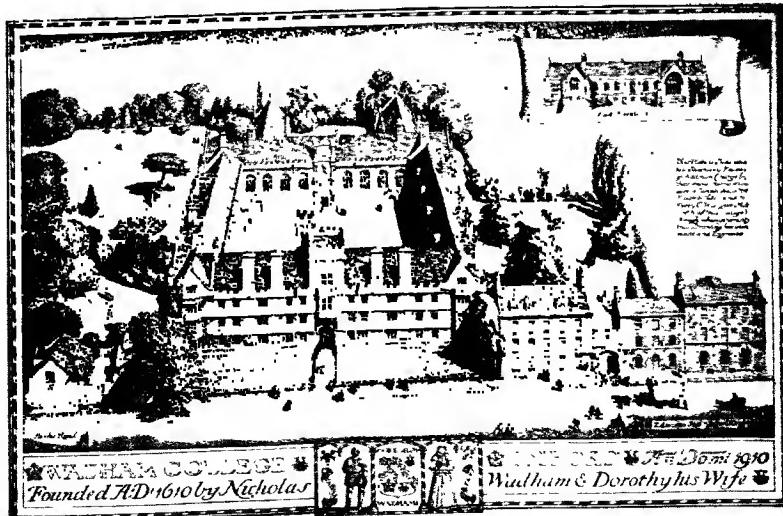
UNIVERSITY COLLEGE



THE CENTRAL BUILDINGS OF THE UNIVERSITY OF OXFORD



LINCOLN COLLEGE



WADHAM COLLEGE

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

and apply it for purposes of speculation. To speculate in such a direction need not necessarily become an idle pastime. And it will not become idle if it adheres to facts as a basis of effort. Its use may be to foster resource and a resilience of thought. And it might serve to show that the place of imagination in art is related to the position of speculation in philosophy. The use and purpose of imaginative exercise, in the attempt to see by mental vision the relative values of admitted fact in physical research, is now more understood. It connects the real with the ideal; it unites invisible things with visible facts; it shows the relation between reality within the limits by which we can appreciate, apprehend, it and an idea; and it shows that the idea is often more a thing than the real by which it is embodied. All things are but symbols of ideas. We are become too much the slaves of what we call facts. And we forget that a fact is only the name or description of a thing, while the actual essence of a thing is in the idea, or truth, it may convey. And while ideas are expressed in thought by words, themselves mere symbols, they reside in mind, the source of thought, the agent of imagination, which is the feeder and breeder of ideas. So when we look at architecture we see in it a body of physical factors; a bundle of formative ideas; and beyond these we seek, and we find, evidence of a something which, though it is reflected by the action and controlled by the exercise of mind, is beyond the capacities of soul or mind and is of the spirit, spiritual. This something is not a thing. It is a life. And it is a fact we can apprehend, but not define. Architecture in the highest efforts of its expression seeks to show something of this spirit, the background of ideas, that is in man. And the kind and quality, the nature and character, of that spirit when expressed will depend on what the agent of its expression himself knows, believes, and is, in his own personality. He makes the spirit expressed in his work either fine or foul, according as he is, himself, the willing recipient of an impulse he must control that is either foul or fine. He is the responsible agent of what his hands and heart may do in an effort to experience, create, and make, ideals of a beautiful or of a vile conception.

Oxford possesses, as we have seen, what may well be considered the finest School of English Architecture in the kingdom. But, unfortunately, that school is not recognised officially, or otherwise, by the University in any definite way. The University as a Corporate Body appears to disregard entirely the teaching of that school. Such an attitude to so great an art is amazing. Particularly is this so when the silent lecturers, the world-renowned professors, at work in the school are treated with no sufficient respect. It is everywhere understood that, as a University should, Oxford

confers degrees in Arts. Yet in one she does not. And that one is one of the greatest, most permanent, most effective, and most historical, as well as one of the most sublime, of all the Arts. It is at her door. It knocks at her very gates. That art is architecture. And the Masters of Arts in that School are those buildings that are the glory of Oxford, the pride of England. Among them are some of the fine treasures, not of this Empire alone, but of the whole civilised world. Yet architecture has been welcomed by other societies of the learned. And that welcome has been given within the portals of dignity, at the high tables of honour, as to one worthy of their regard by those who direct and govern the great affairs of an educational state. It is curious, to those who interest themselves in the arts as a means of uplifting the mind, the spirit, and the vision of men, to be a witness of this English neglect of England's powers in art. Especially is this neglect perplexing, at this late stage of England's life, when all know that among those books of stone in the built library of English art which Oxford owns, or almost disowns, are some that, by both internal and external evidence, are the product of a few of the most brilliant minds England has ever nourished. And though the added interest of a recognised authorship of these buildings is, in many cases, absent, yet, in the case of some, they are the product of known, and able, minds. The architecture of authorship in words is sought and seen in the structure of other productions of the human mind. The structural fabric, the idea, the theme, the plot or plan, the substance on, and by, which Shakespeare, Bacon or Milton wrought is studied with persistent care. The decorative rhythms, and the portrayals of character they used to give adequate expression to the substantial foundation of their art, are examined with intimate delight. Their mind and art is sought, and known, and shown, in, and by, a regard for their works. All masters, most students, and some critics, of literary qualities admit and testify to this. And it is so that the mind and art that makes fine architecture out of good building must also be studied before architecture can be known and the fine art of it seen.

We are told that the "Seven Liberal Arts" in which our older Universities originally gave a degree in "Arts" were those to be found in a list prepared about the time that Theodoric ruled the Western Empire fourteen hundred years ago. That list has been widened. It probably gave the Hebdomadal Council its name. But perhaps the time is near when it may become wise to make it wider still, and, in doing so to admit, not the mistress nor the master, but the first parent of all the Arts whose name is architecture. For it is to this art that Oxford owes, in no small degree, much of her well-won fame.

EXHIBITION OF BRITISH ARCHITECTURE

Exhibition of Contemporary British Architecture

The Exhibition of Contemporary British Architecture was opened in the Galleries of the Royal Institute, in the presence of a distinguished company of members and visitors, on Monday afternoon, by the President, who, in formally opening the Exhibition, said :

The man or woman who stands up to perform an opening ceremony finds, as a rule, that his function is not to open an exhibition or other show to the public but to open the public to the show. Happily to-day there is no such inversion of the task. The day has fortunately come when the British public knows what architecture is and what its value is. There is no need to turn the key in their brains or bosoms, and if I make a pretence of turning any imaginary key in the door of the exhibition it is only in the spirit of that phrase so dear to Cabinet Ministers receiving deputations, "Gentlemen, you are pushing at an open door."

Far be it from me to suggest that your disappointment will be less than that of most deputations. Our show is very simple and innocent in its purposes, even if it falls short of its own aims, and if it does fall short it is not because we haven't got the goods, but that we cannot, for various reasons, put them all in the shop window. No sense of delicacy shall prevent me from saying that architecture to-day is going strong. There are plenty of architects and plenty of them are good. The public knows of our existence ; we happily know of the existence of the public, and if we here attempt to facilitate the strength of that knowledge on both sides it is not in any direction of unfortunate salesmanship but simply because, being aware of the generous and general public interest in our craft, we are here attempting to do for our buildings what they cannot do for themselves.

To assemble in one spot some hundreds of modern buildings is obviously impossible, to take the public on a tour of inspection covering hundreds of miles is equally or nearly equally impossible, and so we have brought together this group of representations in order that in the course of a short visit here those whose praise and blame we respect may pour out their blame and praise.

The architect in classic days was honoured. In the Middle Ages, when he wasn't called an architect, he was respected. In the days of the Renaissance he was adulated, in the early part of last century he was tolerated, in the days of the Gothic revival he was venerated. In the days of my youth he was sometimes employed, sometimes trusted, sometimes ignored.

Among ignorant clients with what they would call hard heads, which possibly were hard (too hard, in fact), the architect passed for a luxury, an expense adder.

To-day, at last, it is understood that he is an artist who does not add expense but who regulates expenditure.

As soon as man emerges from savagedom he rises to the notion that he had better wear clothes, not a sack and a piece of string, and he either makes himself a dress suit at home or gets a tailor. The best people try the tailor method.

The architect is only the tailor of houses. As soon as a man feels the need of a house which is more than corrugated iron and matchboard he is out of the sack and string stage and faced with the tailor stage—in other words, he is out for something which costs more and is made of more valuable materials than the shanty of savagedom. The architect is nothing more than one who sees that these valuable materials are not cut to waste, and that the result is not an expensive chaos but a work of art.

A GENERAL IMPRESSION.

By CHARLES E. SAYER [A.]

There can be no doubt that the R.I.B.A. Exhibition Joint Committee were right practically to confine the exhibition to photographs : we want to see what a building actually looks like, and not what the architect hoped it would look like, or what the perspective artist thought it ought to look like. Still, the galleries have a sombre aspect ; moreover, colour is still an essential constituent of architecture even in these drab days. This is not the place for any attempt at detailed criticism, but some general reflections may perhaps be hazarded.

Our French and American critics, whilst giving unstinted praise to our domestic work, complain that our public buildings are too fussy and overloaded with detail. A very eminent French architect was particularly severe on the abuse of the orders as picturesque adjuncts to our street façades—for it is by our streets we are judged. Were he to visit this exhibition he would probably say that the columns had been taken indoors to keep them out of the rain. A few years ago the study of the orders was a new and fascinating pursuit, and architects were moved to air their recently acquired knowledge, not always with discretion. We are learning better now, as many examples exhibited here will show, and at least we may rejoice that we have got rid of what a well-known journalist calls the "cat's-meat order."

In this connection it may be well to recall the late R. Phéné Spiers's saying, "It is absolutely necessary for an architect to understand the orders thoroughly so that he may omit them from his buildings."

The domestic work here illustrated does not belie its reputation—the tendency seems to be still in the direc-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

tion of greater simplicity combined with extreme solicitude for surface texture, and archaeology is very little in evidence. One wonders when private citizens will be able to build again; the present outlook is certainly not rosy.

The Hanging Committee are much to be congratulated on their success in a very difficult task, hampered as they were by lack of space.

Among those present at the Private View were :—

Lord and Lady Aberconway, Lord Carmichael, Lady Carmichael and Miss Carmichael, The Earl of Crawford and Balcarres, Lord Hemphill, General Lord Horne, Lord and Lady Morris, Lord Muir Mackenzie, Lord and Lady Eustace Percy, Lord Shandon, Lord and Lady Strathspey, Lord and Lady Stuart, Sir Herbert Austin, Sir John Burnet, R.A., and Lady Burnet, Sir Edward and Lady Busk, Sir Anthony A. Bowlby, President of the Royal College of Surgeons.

Sir James and Lady Crichton-Browne, Sir Theodore and Lady Cook, Lady Eve, Sir Park Goff, Sir Charles Holme, Sir Arthur L. Lever, M.P., Sir Malcolm and Lady Macnaughten, Sir William and Lady Plender, Sir Edmund Phipps, Sir Charles and Lady Ruthen, Sir Alfred Temple, Sir Charles and Lady Walston.

Lord St. John of Bletso, Sir Charles Hobhouse, Sir Alfred Mond, M.P., Sir Edgar Bonham Carter and Miss J. F. Bonham Carter, Sir Isidore and Lady Spielmann, Mr. Wm. C. Noxon (Agent General for Ontario), Bishop Gore, General Swinton, General Spears and Mrs. Spears, Mr. Ramsey MacDonald, M.P., Mr. John P. Hay, M.P., Mr. G. W. S. Jarrett, M.P., and Mrs. Jarrett, Mr. W. Reynolds Stevens, Mr. Gilbert Bayes.

Commander Carlyon Bellairs, M.P., and Mrs. Bellairs, Dr. W. A. Chapple, M.P., and Mrs. Chapple, Major F. H. Fawkes, M.P., Mr. H. D. Lorimer, M.P., and Mrs. Lorimer, Mr. Maxwell Thornton, M.P., Major R. D. T. Yerburgh, M.P., Mr. H. Hughes-Stanton, R.A., and Mrs. Hughes-Stanton, Mr. Nigel Playfair, Miss Irene Vanbrugh and Mr. Dion Boucicault, Mr. H. Gordon Selfridge, Mr. Arnold Bennett, Mr. L. Cope Cornford, Mrs. Harcourt Smith, Mr. and Mrs. Baillie Scott, Canon Alexander, The Dean of Windsor and Mrs. Baillie, Mr. and Mrs. John Galsworthy, Mr. Thomas Marlowe, Miss Marie Lohr, Mr. Charles Marriott, The Hon. Peter C. Larkin (High Commissioner for Canada), Mr. A. H. Ashbolt (Agent-General for Tasmania), Mr. and Mrs. Greville Montgomery, Mr. and Mrs. Ouless, Mr. J. E. K. Studd and Lady Kathleen Studd, Mr. Eric Barnard, Mr., Mrs. and Miss Evans, Lt.-Col. C. P. Crane and Mrs. Crane, Mr. E. K. Chambers and Mrs. Chambers, Mr. and Mrs. H. V. Lanchester, the Rev. Dr. and Mrs. Haynes, Miss Haynes, Mr. G. Rowland Hill, Mr. J. Allen Howe, Mr. Roland B. Chessum, Mr. and Mrs. Starkie Gardner, The President The Institution of Electrical Engineers, The President Royal Meteorological Society, The President Law Society, and the Masters of many City Companies.

The Mayors of Paddington, Lambeth, Kensington, Marylebone, Hampstead, Holborn, Woolwich, Poplar, Deptford, Westminster, etc.

Correspondence

ILLUMINATING ENGINEERING.

4 December 1922

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I would like to reply to the written communication from Mr. P. J. Waldram in your last issue relating to my recent paper on Illuminating Engineering.

In his first remark I would suggest he has overlooked the fact that the subject of Illuminating Engineering is not one which can be exhausted in one paper, nor was it my intention to attempt it as I mentioned in my opening paragraph.

It afforded me great pleasure to be asked to present a paper on this subject to such an important body as the Royal Institute, and a lecturer naturally considers the best manner in which to present his subject so that it may be of the greatest service to his audience. My work has brought me in close touch with architects in all parts of the country, and my experience has led me to consider that my lecture would be of greater help to them if I dealt with the fundamentals of light distribution, leaving architectural and æsthetic considerations to the architect himself.

As regards the choice of technical matter illustrating my lecture, I was naturally governed by the use of subjects of whose reliability I had first-hand knowledge; and possibly I should have given due prominence to thanking the various bodies who were good enough to assist me in this respect. These include the Illuminating Engineering Society, Capt. E. Stroud, Holophane, Ltd., British Commercial Gas Association, but 90 per cent. of the actual photographs of interiors were those which I myself had engineered and of which I therefore had intimate knowledge.

There is not space to deal fully with all the points which Mr. Waldram raises, but a point which I do feel he overlooks is the fact that all architects are not ardent students of illumination. I rather think at this juncture for Mr. Waldram to analyse illumination in foot-candles does not help an architect very much until the fundamentals of my paper are first generally understood.

Yours truly,

LAWRENCE M. TYE.

R.I.B.A. STREET ARCHITECTURE MEDAL.

Members and Licentiates are informed that they need not submit a photograph and elevation of a building which they wish to nominate for the R.I.B.A. Street Architecture Medal, except in cases where they wish to nominate a building erected to their own designs. The Secretary R.I.B.A. has arranged to inform Architects of buildings for which nominations have been received, and will invite them to send photographs and elevations for the Jury's consideration.

MR. EDWARD WARREN AT OXFORD

MR. EDWARD WARREN'S INAUGURAL LECTURE AT OXFORD.

The first of a course of lectures on architecture in connection with the Oxfordshire Society of Architects was given in the Town Hall on Friday evening, 10 November, under the chairmanship of the President of Magdalen.

Mr. Edward Warren dealt with "The Point of View in the Study of Architecture," and asked of the world in general what mental image does the name of Oxford evoke? To those who intimately knew and loved the city—and the terms in this case were almost synonymous—especially to those who had passed some of the most impressionable years of their youth within her walls, the image was an architectural image. The instinct to which the beauty and dignity of these buildings were due was a sure instinct, that of expressing the nobility of "true religion" by noble architecture, and the dignity of "sound learning" by the dignified housing of scholarship. Oxford being what Oxford is, could they doubt for a moment that she had unconscious influence on all receptive minds, which rendered her pre-eminently fit for the conscious and carefully ordained training of students of the great art of which she was so conspicuous an exemplar? She numbered amongst her sons the great name, the greatest, indeed, amongst British architects, of Christopher Wren, as well as such names as John Ruskin and William Morris. The influence of the latter had been revolutionary, or rather revivifying, and had spread throughout the civilised world. He was, perhaps, trying to convince the already convinced as to the pre-eminent fitness of Oxford for a school of Architecture. Their lectures then were, they hoped, forerunners of such a school, and they had the immediate hope that they might be accompanied by classes in architecture, construction, and design, primarily intended for young men studying architecture with a view to its practice, whether members of the University, or pupils, or assistants in the offices of Oxford architects, but open to all serious students who would follow a definite course of training. The lecturer then dealt with the style, or manner, of buildings in different countries, and went on to say that style, or manner, of building had arisen, naturally, from building necessities and materials, and this he held to be strictly true of all real styles or constructive manners, but it did not, of course, cover adopted, or half adopted, fashions in architecture, or attempted revivals of ancient manners. In England, and markedly in Oxford, the native, local style of building lingered long after the half-hearted adoption of a foreign manner, known as that of the Renaissance, and derived from the French, the Flemings, and the Germans, who were copying the Italians, who were copying, more or less, the remains of Roman buildings and Greek statuary which they were rediscovering. The acceptance in this country was for a long time slow and half-hearted, and throughout England, and more particularly in the West, there were many curious and interesting instances of survivals of, and reverions to, the native manner of Gothic architecture, but none, so far as he was aware, more marked than in Oxford, which had been called the "home of lost causes," and had certainly been so in regard to native Gothic architecture when that was already a lost cause elsewhere. To the student of architecture, continued the lecturer, and especially to those who were studying it with a view to its practice,

that deepening of consciousness as to all forms of buildings and their accessories was inevitable and necessary. They must have a point of view and a critical one; they must acquire a fair knowledge of the constructive history of their craft, as well as of the recognised and accepted rules of modern construction. Some knowledge also, not necessarily deep but accurate as far as it went, of social history and its manifestations in architecture was absolutely necessary. Domestic architecture in especial was the most vivid illustration of social history. Architecture as an illustration of history, and history as an explanation of architecture, were such fascinating studies in themselves that the true student of either would inevitably be drawn to the other. But no mere historical or archaeological reading would lead them far in the understanding of architecture without the earnest study of its basic principles, its constructive needs, and their expression in proportion, balance, and harmony, its protective necessities, and their acceptation and treatment as contributive accessories of design.

ARCHITECTS' FEES FOR STATE-AIDED HOUSING SCHEMES.

The Ministry of Health and the tribunal appointed by the R.I.B.A. are anxious to obtain a settlement of all claims for architects' fees in connection with State-aided housing schemes without further delay. Architects who still desire the assistance of the tribunal are therefore requested to apply to the Secretary of the R.I.B.A. on or before 31 December 1922. The Tribunal cannot undertake to deal with cases submitted to them after this date.

Notices

GENERAL MEETINGS, MONDAY, 18 DECEMBER 1922.

A Special General Meeting will be held on Monday, 18 December 1922, at 7.55 p.m., when a Report will be furnished of the proceedings at the Special General Meeting held on 4 December 1922, and the following Resolution passed at that meeting will be submitted for confirmation:—

"That the Council be authorised to create a mortgage or otherwise to charge all or any the leasehold and freehold property of the Institute as the Council shall think fit, to secure the sum of £20,000 and interest, and to execute such deeds and documents as may be required in connection therewith."

The Fourth General Meeting (Ordinary) of the Session 1922-23 will be held on Monday, 18 December, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held on 4 December 1922; formally to admit members attending for the first time since their election; Nomination of Candidates for Membership (Election 8 January 1923).

To read the following Paper: "The Law of Building Outside London," by A. N. C. Shelley, M.A.Oxon., B.C.L., of H.M. Ministry of Health.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Competitions

LAYING-OUT OF BUILDING ESTATE, DOUGLAS, ISLE OF MAN.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

Members' Column

OFFICE TO LET.

A R.I.B.A. offers share of his furnished office to another member at nominal rental with a view to mutual assistance if required. Good West-end address. Office well lighted and fitted with telephone, gas fire, etc. Excellent opportunity for provincial architect requiring London office, or architect commencing practice.—Apply Box 922, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

CHANGE OF ADDRESS.

Mr A. J. McILFAN F.R.I.B.A., who has been practising for the last year in Haywards Heath, has opened an office in Brighton at 3, Palace Place.

ROYAL ENGINEERS (T.A.).

Any member under 30 who would care to take up a commission in the Royal Engineers (T.A.) is requested to communicate with the Secretary R.I.B.A.

APPOINTMENTS WANTED.

ASSOCIATE with 22 years' general experience desires suitable position. Acustomed to full control. Good business knowledge. Part time not objected to.—Apply Box 115, c/o Secretary R.I.B.A., 9, Conduit Street, W.

ASSOCIATE (31) 12 years' experience in town, country and the East, open for re-engagement at home or abroad. Ex-service. Excellent references.—Box 2711, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.

A R.I.B.A. with 18 years' varied experience, desires engagement. Surveys, levelling, specifications, quantities, estimates. Ex-Royal Academy Schools student. Recent experience on bank premises. Willing to acquire interest in established practice after probationary period.—Apply Box 925, c/o Secretary R.I.B.A., 9, Conduit Street, W.

WORK urgently required in any capacity by architect's assistant Married. Accept any reasonable salary. Full war service, twice wounded Disengaged.—Apply Box 275, c/o Secretary R.I.B.A., 9, Conduit Street, W.

SCOTLAND

SCOTTISH Architect in practice in Edinburgh, A.R.I.B.A., F.S.I., is prepared to collaborate with London Architects having commissions in any part of Scotland. Apply Hon. Secretary, Edinburgh A.A., 14, Hill Street, Edinburgh.

Due to a printer's error the name of Mr. Trenwith Wills in the last number of the Journal was given as Sir Trenwith Wills.

Minutes III

SESSION 1922-1923.

At the Third General Meeting (Business) of the Session 1922-23, held on Monday, 4 December 1922, at 8 p.m.—Mr. Paul Waterhouse, President, in the Chair. The attendance book was signed by 14 Fellows (including 8 Members of the Council) and 10 Associates (including 2 Members of the Council).

The Minutes of the Meeting held on 20 November 1922, having been published in the Journal, were taken as read, confirmed and signed by the Chairman.

The following Member attending for the first time since his election was formally admitted by the President:

Mr. E. S. CHARLTON, Associate.

The following candidates for membership were elected by show of hands:

AS FELLOWS (15).

ANSFLI : WILLIAM HENRY, M.C. [A. 1900].
BOTHWELL : EDWIN FORBES [A. 1915], Shanghai, China.
CALLOW : CHARLES FRY [A. 1905].
CARNELL : JOHN LAURIE [A. 1895], King's Lynn.
COLLINS : HENRY RICHARD [A. 1921], Chester.
DITCHBURN : DAVID WILLIAM [A. 1908], Bombay, India.
GOTCH : LAURENCE MURSELL [A. 1906], Kettering.
MARWICK : THOMAS PURVES, F.S.I., F.S.A.(Scot.) [A. 1883], Edinburgh.

MIDDLETON : ORLANDO [A. 1895].

RILEY : WILLIAM HENRY [A. 1906], Leicester.

RYDE : FRANK CECIL [A. 1888].

SHORT : Major ERNEST WILLIAM GEORGE, C.B.E., F.S.I., S.R.E.S. [A. 1921], Salisbury.

SOUTER : CHARLES GEDDES [A. 1921], Dundee.

STRETTON : CLEMENT [A. 1901], Leicester.

TANNER : EDWIN JOHN [A. 1911].

AS ASSOCIATES (141).

*ALEXANDER : WALTER [S. 1922—Special War Exemption], Quetta, India.

ALLEN : CHARLES WILLIAM [Special War Examination], Nottingham.

ANGUS : ANDREW EDWARD [Special War Examination], Windsor, Ont., Canada.

AUSTIN : LESLIE MAGNUS, A.R.C.A. [Special War Examination].

BACKWAY : GERALD HENRY [Special War Examination].

BAILLIE : WILLIAM [Special Examination], Glasgow.

BALL : WALTER FREDERICK [Special War Examination], Gloucester.

BALL : WILLIAM ARTHUR CESSFORD [Special Examination].

BANKART : HUGH CHARLES [Special War Examination].

BARNARD : CHARLES DOWNING [Special War Examination].

BATHURST : LESLIE JOHN [Special War Examination].

BEAUFOY : SAMUEL LESLIE GEORGE [Special War Examination].

BEESTON : CHARLES NICHOLSON [Special War Examination].

BEESTON : WILFRED [Special War Examination], Liverpool.

BINGE : JOSEPH WALLACE, M.C. [Special War Examination].

BIRD : ERIC LESLIE [Special War Examination], Chalfont St. Peter, Bucks.

BLAKELFY : TOM [Special War Examination], Dewsbury.

BOOKER : ALFRED VINCENT [Special War Examination].

BOX : HARRY EWART [Special War Examination].

BRAMWELL : JOHN [Special War Examination], Liverpool.

BRIARS : REGINALD, M.C. [Special War Examination].

BROADBENT : JOHN STEWART [Special War Examination].

BROTHERS : COLIN STANLEY [Special War Examination], Liverpool.

BROWN : ALFRED JOHN [Special War Examination].

BROWN : WALTER [Special War Examination].

BUTLER : BERTRAM [Final Examination], Dudley.

BUYSMAN : CORNELIUS JAMES ALEXANDER KELDER [Special War Examination].

CALY : WALTER HERBERT [Special War Examination].

CARTER : GEORGE BERTRAM [Special War Examination].

CARTWRIGHT : WILFRED [Special War Examination], Loughborough, Leicestershire.

CHISHOLM : ALEXANDER MACLEOD [Special War Examination], Birkenhead.

CLACK : JOHN [Special War Examination].

CLARK : SIDNEY [S. 1911—Special War Exemption].

* This candidate qualified for registration as Student in 1910.

ELECTION OF MEMBERS

- CORNES : ERNEST HAROLD [Special War Examination], Chester.
 CRICKMAY : GORDON HAYTER [Special War Examination].
 CROWTHER : JOHN HENRY, junr. [Special War Examination], Dewsbury.
 DENT : ALWYN RONALD [Special War Examination].
 EASTWOOD : FREDERICK GEORGE [Special War Examination], Manchester.
 EGGINS : FRANK WALLIS [Special War Examination], Paignton, South Devon.
 ELLIS : JACK [Special War Examination], Cublington, Bucks.
 FARE : ARTHUR CECIL [Special War Examination], Bath.
 FARRIER : ARCHIBALD VICTOR [Special War Examination].
 FLITCROFT : ALFRED CRUMBLEHULME [Special War Examination], Bolton.
 FLUTTER : ANTHONY THOMAS [Special War Examination].
 FRANCIS : CECIL WILLIAM [Special War Examination].
 FRASER : BRIGHT [Special War Examination], Wallasey, Cheshire.
 FRYER : EDGAR [Special War Examination], Liverpool.
 GADD : GEORGE CYRIL [Special War Examination], Bromsgrove.
 GEORGE : CONRAD ERIC [Special War Examination].
 GILDER : FRAMROZ NOWROJI [Final Examination].
 GLASS : JAMES SCOTT, M.C. [Special War Examination].
 GOWER : LAWFORD RAYMOND [Special War Examination], Briton Ferry.
 GRAY : JAMES [Special War Examination], Edinburgh.
 GUNSTON : EDWARD LESLIE [Final Examination], Reading.
 HALL : HERBERT JAMES [Special War Examination].
 HALL : MONTAGU ASHLEY [Special War Examination], Lincoln.
 HAMPTON : JAMES FREDERICK [Special War Examination].
 HICKEY : PATRICK [Special War Examination].
 HOFLER : MAX RICHARD [Final Examination].
 HOLDEN : WALTER FREDERICK CLARKE, M.C. [Special War Examination], Beaconsfield.
 HOPWOOD : JAMES [Special War Examination].
 HOWITT : LEONARD CECIL [Special War Examination], Liverpool.
 HUBBARD : GEORGE EDWARD [Special War Examination], Newnham-on-Severn, Gloucestershire.
 HUGHES : ELEANOR KATHERINE DOROTHY [Final Examination].
 ILLINGWORTH : ARTHUR JOHN ALEXANDER [Special War Examination], Bombay, India.
 JARVIS : HAROLD EDGAR [Special War Examination], Banbury.
 JENSON : ALEXANDER GEORGE [Final Examination], Birmingham.
 JOHN : LEWIS [Special War Examination], Cowbridge, Glam.
 JOHNSON : WILLIAM ARTHUR [Special War Examination], Manchester.
 JONES : THOMAS EDWARD [Special War Examination], Port Dinorwic, North Wales.
 KEMP : LESLIE HAGGER [Special War Examination].
 KENDALL : CHARLES, M.C. [Special War Examination], Ossett, Yorks.
 KENNEDY : COLIN WHITE [Special War Examination].
 KILLENDER : HENRY CLAUDE [Special War Examination], Liverpool.
 KING : GEORGE EDWARD [Special War Examination], Nottingham.
 KINNA : KENNETH [Special War Examination], Liverpool.
 LAMBERT : FREDERICK HENRY [Special War Examination].
 LEVERKUS : GERTRUDE WILHELMINA MARGARET, B.A. [Final Examination].
 LIDBURY : GEORGE VICTOR [Special War Examination].
 LIVETT : RICHARD ALFRD HARDWICK [Special War Examination].
 LONSDALE : HERBERT GREENHALGH [Special War Examination], Manchester.
- LUMSDEN : DAVID ADAMS [Special War Examination], Birmingham.
 McDONALD : JAMES ROBERT ANGUS [Special War Examination], Jarrow-on-Tyne.
 MCNAUGHT : ROBERT MACKISON [Special War Examination], Dumbarton.
 McWILLIAM : ALEXANDER [Special War Examination], Edinburgh.
 MANSERGH : BRIAN GEORGE LEWIS [Special War Examination].
 MARR : JOHN GIBB [Special War Examination], Aberdeen.
 MEAGER : KILDARE STUCLEY [Special War Examination].
 MILBURN : CHARLES WILLIAM [Special War Examination], Darlington.
 MILNER : JOHN SOWERBY [Special War Examination].
 MINTY : WILLIAM STANLEY [Special War Examination].
 MOODY : HERBERT LINE, P.A.S.I. [Special War Examination], Ryde, Isle of Wight.
 MOORE : FRANK ALLEN [Special War Examination], Bristol.
 NEWSUM : ARTHUR THORPE [Special War Examination], Long Eaton, near Nottingham.
 NOBLE : CHARLES [Special War Examination], Manchester.
 NUTT : EDWARD JAMES [Special War Examination], Nottingham.
 O'CONNOR : EDWARD DOMINIC [Special War Examination], Leicester.
 PAGE : ERIC CHARLES RANDLE [Special War Examination], Newport, Mon.
 PALMER : KENNETH [Special War Examination], Gatley, Cheshire.
 PARKER : JOHN KILGOUR [Special War Examination].
 PIGGOTT : JOHN ROBERT [Special War Examination], Stoke-on-Trent.
 PIKE : CHARLES WILLIAM [Special War Examination], Dorchester.
 PRITCHARD : HAROLD WILLIAM [Special War Examination], Liverpool.
 QUARMBY : GEORGE GILBERT [Special War Examination], Burnley.
 RAE : DONALD CAMERON [Special War Examination], Aberdeen.
 RANKINE : ANDREW [Special War Examination], Hull.
 REES : JOHN FREDERICK [Special War Examination], Newport, Mon.
 REID : ALEXANDER SIMPSON [Final Examination], [Ashpitel Prizeman 1922]. (*Distinction in Thesis*), Aberdeen.
 RICHARDS : FRANCIS AUGUSTUS, M.A.Oxon [Special Examination].
 RIDDELL : WILLARD BRUCE [Special War Examination], Hamilton, Ont., Canada.
 RILEY : HERBERT GEORGE [Special War Examination], Foxton, Leicestershire.
 ROGERS : WILLIAM JELF [Special War Examination], Newport, Mon.
 ROSS : DAVID JOHN ALEXANDER [Special War Examination], Inverness.
 RYLE : WINIFRED [Final Examination].
 SAWYER : FREDERICK JOHN [Final Examination].
 SCOTT : HERMAN ALEXANDER [Special War Examination].
 SHEPHERD : JOHN CHIENE [Special War Examination], Liverpool.
 SKIPPER : ERIC HAYWARD [Special War Examination], Norwich.
 SKIPWITH : LIONEL ERNEST [Special War Examination].
 SLAUGHTER : LESLIE SCOTT [Special War Examination].
 STAPLING : WILLIAM LOVE [Special War Examination].
 STILLMAN : CECIL GEORGE [Special War Examination], Winchester.
 STRIBLING : HERBERT JAMES [Special War Examination], Slough, Bucks.
 SUGDEN : HOWARD DAVY [Final Examination].

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

SUTHERS : STANLEY HOLT [Special War Examination], Petersfield, Hants.
 TANNER : CHARLES PUGET [Special War Examination], Newcastle-on-Tyne.
 TAYLOR : WILLIAM LOGAN [Special War Examination], Kin-tore, Aberdeenshire.
 TEMPLAR : WILLIAM RICHARD [Special War Examination].
 TOMS : BERTRAM HENRY [Special War Examination].
 TOWNDROW : FREDERICK EDWARD [Special War Examination].
 TROUP : ROBERT JAMIESON, M.A., Croix de Guerre [Special War Examination].
 VINYCOMB : WILLIAM LIDDLE [Special War Examination], Forest Hall, Northumberland.
 WHITTAKER : GEORGE [Special War Examination], Blackburn.
 WILKINSON : HERBERT CUTLER [Special War Examination], Nelson, Lancs.
 WILLMOTT : STANLEY JOHN [Special War Examination].
 WILSON : JOHN WILLIAM GILNOUR [Special War Examination].
 WINSLADE : MORRIS LESTER [Special War Examination].
 WYNNE-WILLIAMS : WALTER PHILLIPS [Special War Examination].
 YATES : CHARLES WILLIAM [Special War Examination], Bristol.
 YOUNG : JOHN REEVE [Special War Examination].
 YOXALL : THOMAS [Special War Examination], Burslem, Staffs.

AS HON. ASSOCIATES (2).

HEDSON : EDWARD.
 KEYSER : CHARLES EDWARD, M.A., F.S.A., F.S.A.Scot., F.R.Hist. Soc., F.R.Soc. of Litt., J.P., D.L., President of the British Archaeological Association, Aldermaston Court, near Reading.

AS HON. CORRESPONDING MEMBERS (9).

ARNAUD : EDOUARD, Director of the Teaching of Construction, Ecole des Beaux Arts, 11 Rue de Téhéran, Paris (8e.).
 BARBER : DONN, 101 Park Avenue, New York, U.S.A.
 EMERSON : Professor WILLIAM, Director of the Department of Architecture, Massachusetts Institute of Technology, 491 Boylston Street, Boston, Mass., U.S.A.
 GOODHUE : BERTRAM GROSVENOR, 2 West Forty-seventh Street, New York, U.S.A.
 HASTINGS : THOMAS, Royal Gold Medallist 1922, 52 Vanderbilt Avenue, New York, U.S.A.
 HÉBRARD : EBNEST, Grand Prix de Rome 1904, 23 Rue Jacob, Paris (6e.).
 KOGURE : Dr. A., Professor of Architecture at the Tokio University, Japan.
 PLATT : CHARLES A., 101 Park Avenue, New York, U.S.A.
 STEVFNS : Commendatore GORHAM PHILLIPS, Director of the American Academy in Rome, Porta San Pancrazio, Rome, Italy.

The Secretary announced that by a Resolution of the Council the following had ceased to be members or Licentiates of the Royal Institute.

FELLOWS.

ALFRED ARTHUR COX.
 WILLIAM FORSYTH McGIBBON.
 HARRY BELL MEASURES.

ASSOCIATES.

EDWARD VINCENT KING.
 CHARLES KAY MAYOR.
 WILLIAM DAVID JENKINS.
 CECIL JOHN HARVY KEELEY.
 FRANK STEWART TAYLOR.
 FRED WADE.
 CECIL REYNOLDS WINTFR.

LICENTIATES.

WILLIAM HENRY BAINES.
 ALERFD BALE.
 WILLIAM ARTHUR MORDLEY BLACKETT.
 CHARLES HENRY BROOKE.
 JOHN GODFREY BLINE.
 HORACE BURGESS.
 HUGH CAMPBELL.
 JOHN CRAN, iunr.
 FREDERICK MONTAGUE DEAKIN.
 THOMAS T. G. DONALDSON-SELBY.
 WILLIAM DRIEFIELD.
 EDWIN THOMAS DUNN.
 D. EASTON HERRALD.
 GILBERT HODGSON.
 FRED. HOWARTH.
 FREDERICK HOWARD LIVESAY.
 FREDERICK LOWRY.
 OLIVER COLLIN MATHER.
 JOHN RICHARD MEWTON.
 PERCY GEORGE OVERALL.
 SAMUEL FRANK PETERS.
 KARI BRANWHITE SPURGIN.
 JOSEPH HUNT STANFORD.
 THOMAS SWALES.
 LESLIE TANNER.
 CHARLES E. THOMPSON.
 EDWARD J. TOYE.
 GEORGE SIRLING TWIZELL.
 WILLIAM PERCIVAL MUNTEORD WILLCOX.
 GODFREY WOMERSLEY.
 FRANK ERNST WOOTTON.
 ALBERT EDWARD YEMAN.

On the motion of the President, the following Resolution was carried by a unanimous vote :

"That Clause 9 of the Scale of Professional Charges be omitted, and that a footnote be added to the Scale calling the attention of members to the General Housing Memoranda of the Ministry of Health embodying the fees for housing work now in operation."

SPECIAL GENERAL MEETING (PREMISES).

At a Special General Meeting for the consideration of the Council's proposals for dealing with the mortgages on the property of the Royal Institute, held on Monday, 4 December 1922, following the Business Meeting above recorded, and similarly constituted. On the motion of the President, the following resolution was carried by a unanimous vote :

"That the Council be authorised to create a mortgage or otherwise to charge all or any the leasehold and freehold property of the Institute as the Council shall think fit, to secure the sum of £20,000 and interest, and to execute such deeds and documents as may be required in connection therewith."

The meeting terminated at 8.17 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.



The Law of Building Outside London

BY A. N. C. SHELLEY, M.A., B.C.L., BARRISTER-AT-LAW [MINISTRY OF HEALTH].

[*A Paper read before the Royal Institute of British Architects on 18 December 1922.*]

I NEED hardly say that to-night I shall not lecture upon building law in the sense in which I should address a class of pupils in a Law School. I do not know whether your Institute includes the law of building in its curriculum for pupils' courses ; but you, at any rate, have come here for a different purpose. I imagine you are here for information not on details, but upon the general scope of the law under which you exercise your profession, the particular difficulties which have been brought to the notice of the Central Department from time to time, and the policy which has been followed in that Department in dealing with those difficulties and with the subject generally.

One word more of personal explanation. It is thirteen years since I entered the Department of the Local Government Board, of which I became Principal on its transfer to the Ministry of Health. My predecessor, under whom I served until 1919, had held office since 1897, and most of my present staff have been in the Department twenty, thirty or nearly forty years. I am thus in a position to speak with confidence of the practice of the past, and to assure you of the continuity of policy between the past and present. But for the future it is obvious that no official can speak with equal confidence. That is in the hands of the Government and Parliament. I can speak of history and fact ; but I attend to-night by permission of the Minister of Health,

and it is right for me to make it clear that any speculative views I may express are my own views and not his.

Let me explain the title of my paper. I exclude London because the Minister of Health has little concern with London building law, and because the system by which building is there controlled differs wholly from that in the Provinces. As you know, the London system is based upon the London Building Act, 1894, with some survivals from earlier legislation, and a good number of piecemeal amendments, the main provisions dating from that year. The Minister of Health is the confirming authority for such building bye-laws as can be made by the London County Council, but few such bye-laws have, in fact, been made. He is also the confirming authority for regulations as to reinforced concrete under the amending Act of 1909. This particular matter is important, but, taken as a whole, the Minister has little to do with London building, which is almost entirely covered by direct statutory enactments. These statutes are chiefly administered by officials called District Surveyors, who exercise powers given them by Parliament and have no parallel elsewhere.

Why have I chosen "building law" rather than "bye-laws with respect to buildings" for my title ? It is because bye-laws are not by any means the only method of control exercised by the provincial

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

local authority. In addition, there are regulations (not, as a rule, of very great extent) which are not the same as bye-laws. Then there are direct provisions of the Public Health Acts and other Acts, and there are discretionary powers of considerable scope.

It is as well that everyone concerned with building should grasp the distinction between these various methods of control, and it is essential for those to do so who are seeking to reform the present system. Let me explain it briefly. Parliament says that you shall not build a living-room above a privy or two back-to-back houses : these are direct enactments, and a local authority has no concern but to enforce them. Then it says that you shall not bring your building in front of a certain line without the local authority's consent : or that if your private streets are not to the local authority's satisfaction, they can require you to make them up ; these are *ad hoc* discretions vested in the local authority. Again, the communication of your house drain with the sewer is controlled by "regulations," fixed in advance, and so differing from an *ad hoc* discretion, but not the same as bye-laws, as you will see in a moment.

What, then, is a bye-law? The bye-laws in which you are interested are local laws made by a town council, urban or rural district council, and have no validity unless confirmed by a central authority, originally the Home Secretary, then from 1871 to 1919 the Local Government Board, and now the Minister of Health. And not only must a bye-law be confirmed : it has two other features which are worth remembering. Its making must be advertised in the locality, and it must be open to public inspection for a month before the Minister can legally confirm it. These requirements sound formal, but they have corollaries of the first importance.

It is the nature of a discretion that you do not know in advance how it will be exercised : a bye-law tells you what you can or cannot do. The actual requirement imposed upon the public must lie there in black and white : it must be definite, and its terms ascertainable by all. A bye-law which is vague or dubious in meaning is contrary to law. This certainly is one great advantage of a bye-law ; I shall come to others later, and deal with certain disadvantages. Confusion is common, and has given rise to a good deal of the outcry against bye-laws. For example, I have seen recently many allusions in the papers to bye-laws governing the

height of buildings in London or elsewhere. I am not going into the merits of that controversy, but do you know how many towns have bye-laws on this subject ? Three, and London not among them. In London the height of buildings has been fixed by Parliament itself, with a discretionary power in the County Council to increase the figure in particular cases. Bye-laws do not come into it. Similarly one constantly sees it stated that "combined drainage" is forbidden by the bye-laws of local authorities ; but I have never seen a bye-law which did so, and I do not believe that one exists. The works required in private streets at the stage when they are taken over are a matter for which bye-laws get the blame. But no local authority has any power whatever to make bye-laws on the subject.

You will find all that I have said, and much more than time will let me say to-night, set out in general terms in the Report of the Departmental Committee on Building Bye-laws. I shall refer to this again.

I happened before the War to be appointed Secretary of that Committee, and towards the end of the War, when it resumed its sittings, I was able to fit them in with other work. But I was not a member. I had no responsibility, and I can therefore, without egotism, bring the Report to your attention. Obviously it would not be possible within the limits of such a Report or of this lecture, or, indeed, within any reasonable limits, to give in detail the whole law. That differs from town to town, and from district to district. This difference is, I know, one of the matters which have caused your Institute most anxious thought. Let me explain how it comes about, for the history of building control in this country has lessons for the present and the future. It is pointed out by the Departmental Committee that almost from time immemorial English corporations have exercised control over buildings in their areas. The municipal government must have done so from its first creation, and a London ordinance of the first year of Richard I., which deals with the construction of party walls for the prevention of fire, is the earliest that I have seen.

In a mediæval city, huddled into the narrow area within the walls, the prevention of fire must have been one of the first cares of the city government. The many fires which occurred in despite of the municipal authorities arose because few proper roads existed, and therefore incombustible material was scarce and dear.

THE LAW OF BUILDING

As time went on, experience accumulated, but I do not want to dwell in the Middle Ages. Let us note these local enactments which I have called ordinances to distinguish them from later forms of control, and then pass on.

For practical purposes our history to-night can start in the eighteenth or early in the nineteenth century, when, side by side with the old municipal corporations, bodies of Commissioners were springing up for the government (in particular) of the growing towns called into being by the Industrial Revolution.

These Commissioners commonly obtained a private Act of Parliament which endowed them with powers in relation to sanitation and the control of streets and buildings. Hundreds of such Acts were passed between 1750 and 1850.

Thus, by 1840 or thereabouts, you find almost every town of any size, and many quite small places, endowed with special statutory powers.

Each sought what it wanted for itself, but the tendency of the English lawyer and Parliamentary draughtsman to follow and adapt a precedent soon showed itself in the copying of Acts from town to town. This process still goes on ; every year numerous local Acts are strung together from the precedents of the Parliamentary Agents, and from time to time a general Act is passed which throws open to all local authorities the benefits—or supposed benefits—which the pioneers have thus secured. Every one of the Public Health Acts came into being by this method. Now in the eighteen-forties there was a reforming spirit, a steady growth of population, and development in all directions, and so there came a whole series of statutes designed to simplify legislation in the future, by collecting groups of common form clauses which could without difficulty be put in force *en bloc*. The names show what these Acts contained :—The Companies Clauses Act, the Water Works Clauses Act, the Towns Improvement Clauses Act, and several more. Not only local government and public health : railways, companies and other Clauses Acts were framed in the same way. It is enough to notice that some of these groups of common form clauses dealt with streets, buildings and the like ; they were designed for inclusion in local Acts of Parliament by the simple process of enacting “ Such and such a Clause Act is hereby incorporated with this Act.”

It is an unfortunate fact, mentioned by the

Departmental Committee, that some of these sections have remained until the present day, and—good as they may have been eighty years ago—they now block all progress in the particular matters to which they relate in the towns where they are in force. Beware of Acts of Parliament.

In 1848 there was passed the first of the Public Health Acts, marking the transition from the local Act system to the modern system of control. This was still not universally in force, and it contained a general provision under which, where it applied, the control of buildings and streets was put at the absolute discretion of the local authority. As the Departmental Committee state, it would be difficult at the present day to obtain evidence of the working of the discretionary system of the 'fifties, but it is, I think, significant that only ten years later this discretionary system was swept away and replaced by one under which such matters were to be controlled by bye-laws, which every urban authority was to be empowered to make. Remember what I said : a bye-law is definite, it must be advertised and deposited for inspection before coming into force, and it must be confirmed by some outside authority.

The Act of 1848 had gone : that of 1858 was in due course repealed, and its main provisions re-enacted, with improvements, by the Public Health Act, 1875, under which (with minor amendments by later Acts) we work to-day. By this Act something like a uniform scheme of governing bodies was created.

The main feature in regard to building is that (subject to certain exceptions to which I have referred, by way of direct provision or discretion) control is by bye-laws framed and administered by the same authorities.

This is the present system of the general law.

Note that from the eighteen-forties, or perhaps it would be more true to say from 1858, you have had two systems side by side : the general law which worked by the bye-law method, though with certain hesitations or inconsistencies, and the local law which was contained in special Acts of Parliament. The latter method—the special local Act—is the older, and the modern local Acts are supposed to be restricted to matters which the general law has not yet touched. There is now a Standing Order of the House of Commons which contemplates that nothing shall be done by local Act for which the general law already provides, and the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

practice of the Lord Chairman in the House of Lords is on even stricter lines. I doubt if any local authority has really lost by this, although there are often efforts to get round the rule.

Unfortunately experience shows that these special statutory powers—new as well as old—have often not worked properly, and local authorities have had to go to Parliament again to change them. An Act of Parliament cannot—broadly speaking—be amended except by a fresh Act or by a Provisional Order requiring confirmation by Parliament, and therefore at the best there is bound to be delay. For this and other reasons, the tendency of Parliament in recent times has been steadily against giving fresh power of control by statute. The great Corporation of Liverpool, whose building law until last year was spread over a series of most intricate statutes beginning with 1842, have now swept them all away. Their Consolidation Act of 1921 retains some of their exceptional powers, but as regards ordinary building they have come into the general system, taking such powers as they needed in addition to those given by the general law in the form of a power to make extra bye-laws. This is the tendency of the present day on every side, and it cannot be coincidence.

You will, I think, agree, whatever your views as to the disadvantage of different provisions in different districts, that the disadvantage is many times increased where the law is not merely localised but also rigid, as a statute must be.

If local Acts of Parliament can now be eliminated in considering what we want to do in future, the issue is narrowed to a comparison between three other possible systems : the present system, a system of control by a general enactment in more or less fixed terms, and a system of discretions.

I could approach this in different ways : considering either the advantages or otherwise of a universal code, or the administrative methods to be followed with one system or the other, or the feasibility of scrapping our present administrative machine and replacing it by something better adapted to the needs of architecture.

Let me take the last point first, and say that, be it good or bad, I see no chance, politically speaking, of getting rid of the local authority's control.

When I began by saying that an official must be something of a politician, I was (I need hardly say) not thinking wholly or mainly of politics in the ordinary sense. I mean that he must consider the

House of Commons. The introduction of a Bill to divorce control of building from local government, whatever you proposed in place of that which now exists, would in my view be a hopeless step.

The main obstacle to all legislation is that Parliament, in a given time, can only do a certain amount of work : some claims, such as the Budget, are paramount, and among the rest preference is inevitably given to that which makes the most appeal. Other Bills are rushed, or even fail to reach the stage of Second Reading. (Incidentally, this is one of the difficulties about statutory control of building, on which I shall have more to say ; your code is certain to be rushed and thus to be imperfect.)

But suppose you get your Bill introduced, and by some miracle Parliament has time to spare. If you are starting on drastic measures of reform, you will meet much organised and intelligent opposition. The Labour Party might attempt Mr. and Mrs. Webb's ingenious scheme for reforming local authorities as they now exist, but even under that scheme building control would be a branch of local government. You cannot get away from that. Therefore, as a matter of pure tactics, even if the merits were all in favour of large changes, it would be well to consider whether something less, which would be practical, should not be substituted.

Observe, so far I have said nothing about the desirability of getting rid of local authorities as the controlling factor : only of the feasibility of doing so. Having said that I think you must accept local authorities, let me proceed to the criticisms chiefly levelled at them, and make some frank suggestions. These criticisms and suggestions would be just as apposite or inapposite whatever code of law was being worked.

Be it under bye-laws or under statute, the first step is to submit your plan—and then, according to the critics, the trouble starts. But you cannot really lay down a general proposition and say thus or thus is how the system works. Some Councils delegate more power to their committees or officers than others : some require every plan to go before a committee and full Council meeting : others entrust the passing of plans to a committee : others, in fact, though there may be a later formal stage, allow the Surveyor to pass plans in their name. Where the Surveyor is a good man this is clearly to the advantage of the architect : he gets a quick decision, and, if there be dispute, he can discuss it

THE LAW OF BUILDING

with a man who knows the technique of the subject. Where the Surveyor is not quite equal to his job, this is the worst of all systems, for the Council, having once entrusted wide powers to their officer, will be naturally (and rightly) averse to overruling him. You cannot always have it both ways—a speedy and an intelligent decision. To say that surveyors differ in quality is only to say that they are human beings. I remember one who had held his post for more than thirty years, and was amazed to find from our records in Whitehall that there were bye-laws in existence in his district. I know another from whose district we get more complaints of b!unders and courtesy than from the remainder of the county. These men, however, are not typical, and it may be the worst who come most to the notice of Whitehall. There is no doubt at all that in the calibre of men appointed as surveyors there has been a great improvement in the present century, as in most spheres of Local Government. It is inevitable, however, if a decent salary is to be paid, that the duties should often be combined with those of other posts. This means that a man may become building surveyor because of his ability in some quite different work. Others, who possess professional qualifications as engineers or architects, do not always become easier to deal with for the private person. It is here that one finds most of the "imaginary bye-laws existing only in the mind of the surveyor" of which a witness spoke before the Departmental Committee. But let it not be thought that arrogance is all upon one side: I have seen numerous letters where a complaining architect has refused to make the least concession, and has bombarded the Surveyor or the Chairman of the Council with epithets like "absurd" and "ridiculous," when the disputed requirement was at the worst a matter of opinion, and could have been met without appreciable sacrifice. A spirit of reasonable adjustment on both sides would work wonders in many cases of dispute. I have seen months of delay caused because the Surveyor stood on his official dignity and the private architect on his professional pedestal, and neither would advance to meet the other. I have been mixed up in local government for more than twenty years, and I believe it to be true that the ordinary spirit of mutual accommodation which works in business life would work just as well in public life if it got a chance.

And this whether you have one universal code or

1,700 local codes of building law—one for each district of the country. And that brings me to the problem which I know interests particularly some members of your Institute.

Granted that you must have administration by the existing local authorities or some other authorities which would still be local and still diverse, it has been suggested in some quarters that you might nevertheless apply a uniform law throughout the country. This is attractive, and I by no means desire to rule out general legislation in some form, but it is not so simple as it sounds.

It is interesting to note that the original model bye-laws of the Local Government Board, prepared under the Public Health Act, 1875, and issued in 1877, were hailed by the Royal Institute of British Architects as suitable to form a general building code. The Local Government Board, their authors, were more modest, and were content to leave them, as Parliament intended, to be adopted by local authorities who felt the need of them.

Consider the result if the model bye-laws as framed in 1877 had been universally applied by Act of Parliament. There is hardly a clause of that series which remains the same to-day as when it was originally drafted. It is sometimes said that the model bye-laws of 1877 are those of the present day, but nothing could be farther from the truth. The governing statute is substantially the same, and that decides the framework, but the filling in is altogether different. If any of you has the patience to examine, clause by clause, the first model and the model as it now is, he will find out what I mean. As one building differs from another in a multitude of details which make up the whole, so it is with the model bye-laws: some differences leap to the eye, but many emerge on close examination. And this is nothing new. In recent years it has been the practice, although it has meant an increased cost to the Government, to print only a sufficient number of copies of the model to last for a few months, and at every reprint such modifications have been made as the experience of local authorities, or the complaints of architects and builders, communicated to the Central Department, have shown to be required. From time to time there have been wholesale changes. There were several before 1900, again between 1900 and 1912, and in 1912 the biggest of all, which really gave us the model as we have it now, despite further overhauling in 1919, and again this year. I want to stress this 1912

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

revision: it is the answer to another common—and unfounded—observation, that it was the housing emergency of 1919 which led to revision of the model bye-laws. As a fact, all that was best in the new methods of construction could have been done under the urban or intermediate 1912 editions, had they only been adopted by local authorities, as they might have been but for the war. But it is not to these general overhaulings that one looks for the real improvement of the models so much as to the periodical reprints, when small alterations are made which in the aggregate have the effect of altering the whole. This has only been possible by the bye-law system, which has given ground for experiment in every district in the country, and has enabled particular local authorities to try suggestions emanating from others or from us or from our correspondents.

If you replaced bye-laws by a general Act of Parliament, you would at once lose this great advantage of an experimental field, but there are other disadvantages in doing so. The Parliamentary machine is not best adapted for turning out legislation on a subject of this kind. I have spoken already of its tendency to rush. No man who has been long in the Civil Service is likely to underrate the qualities of the House of Commons as an instrument of government, but it has its drawbacks. It is not interested in such a subject as the law of building, and so accepts amendments from well-intentioned but ill-instructed persons—amendments which are the despair of those who have to work the resulting statute. And even if you get a satisfactory Act of Parliament, you have no guarantee that it would remain satisfactory for long. As I have just said, the model bye-laws of 1877, which were the result of careful attention by the experts of the Local Government Board, and were praised in high terms by this Institute, were soon found to need alteration, and have, in fact, been entirely recast. Where local authorities have dealt with building by special Acts of Parliament it has constantly been found necessary to have amending Acts and Orders. Building is, as you know, a progressive art and science.

I said that I did not close the door to general legislation of some kind. I do not think an Act of Parliament would be suitable for the reasons I have given at such length. The only other way it could be done would be if Parliament entrusted a Government Department with power to issue a general Order having statutory force.

An Order of this kind could distinguish between districts in a way which would be impossible in an Act of Parliament. It would not be subject to the same temptation on the part of private Members to add to its bulk, and, above all, it could readily and quickly be adapted to new circumstances. It would, however, be unfortunate, just as unfortunate as with an Act of Parliament, if it contained too much. It would be essential to confine it to the most important points. Subject to this, I should, if it rested with me (as it would not), see little objection to the exercise by the Central Department of such a jurisdiction, though it was discussed by the Departmental Committee and rejected on practical grounds, but it would have to be understood that not too much should be expected from it.

There may be great changes brought about at any moment. I often meet an architect of remarkably progressive views. A few weeks ago he told me of a new cement, of such adhesive properties that the whole practice of building was about to be revolutionised. As a layman, I am bound to accept this from a professional man of standing, and I beg you to consider what a pity it would be if you had gone to the trouble of framing a complete code of building law for the materials known at the present day and then found it was out of date because of some new invention.

One widespread change already has had less attention than it merits. I mean the change in the mode of building factories. Fifty years ago the ordinary factory was built floor above floor, much like a magnified dwelling-house. To-day it tends (let me not put this too high: it tends) to break new ground when land is cheaper, and to be built on one floor. There are obvious advantages in the handling of goods, the placing of machinery, and the construction of sidings and motor roads. Thus the structure of walls has ceased to have the same importance. They are frequently mere screens. Mark how the bye-law system adapts itself to this. A special firm is likely to be entrusted with the work. This renders the control of the local authority to a great extent superfluous. In many such cases it would be vexatious. There are no doubt many men in municipal service who are fully qualified for this work, but I think it is no way disrespectful to assert that the majority can use their time to more advantage in looking after other kinds of buildings. This change has been seen for some time by the Central Department, who have

THE LAW OF BUILDING

encouraged the adoption of bye-laws based on the intermediate model, which contains no clauses dealing in detail with the walls of factories. It must be remembered that in factory building the speculative element is much less active than in building dwelling-houses. I do not wish to treat the speculative builder as he is often treated. Speculative building, in a wide sense, has given us most of our building in the past, and must do so in the future. To foster it, whilst assisting the local authority to control it so far as really necessary, was the policy of the Local Government Board for many years before the war.

But speculative building has its dangers, and the point I make is this, that those dangers are less in factory building than in houses. The person who orders the building of a factory expects to hold it, and to set aside money for depreciation. He has, therefore, every interest in seeing that, relatively to the needs of his business, it is well built and well maintained.

In regard to fire, also, manufacturers generally are more alive to the advantages they gain from co-operation with the insurance companies, who have an improved service for advising manufacturers and warehouse keepers how to minimise their risks. Therefore I say that local authorities in general cannot exercise control so well as the constructional company and the insurance company. But if this is a reason why intermediate bye-laws are to be preferred, it is equally a reason to be thankful that Parliament did not fall into the error years ago of passing an Act to stereotype the modes of building then in vogue.

Is it not better to keep the matter fluid, and to put up even with some inconvenience from differences between one district and another, most of which are due, when all is said and done, to the spirit of progress which leads a local authority with an up-to-date surveyor to amend its local laws more quickly than its neighbour? In this way you get experiments in one place of which others take advantage.

An Act of Parliament is inherently static, and for controlling a progressive art in the public interest you do not want a static code of law.

Let me point out another difficulty about an Act of Parliament. It is said that the basic rules of stability and design are the same in all parts of the country. Granting this, the consequences of a breach of those rules are nevertheless much more

serious in a thickly populated area than on an open moor. It is not desirable to impose on builders in sparsely populated areas the same control in detail as in the largest towns. Even if the same rules are, in fact, followed, their formal enactment is itself a source of cost. The builder or architect has to draw more detailed plans, the local authority have to have a bigger staff, and the work has to be more often inspected to verify that the law is being satisfied. The same man foots the bill twice over, in his dual capacity of building owner and of ratepayer.

Nobody, I take it, seriously disputes these arguments, but how could you give effect to them in an Act of Parliament? The old distinction between urban and rural districts will not do, for many urban districts and boroughs are more countrified than parts of other districts which are technically rural.

In bye-laws it is simple; you have four classes—those with no bye-laws, those with the fullest code, and two classes in between. The local authority itself says which code it wishes to apply, and the Central Department, comparing its circumstances with those of other districts, determines whether those circumstances justify such strong measures as the local authority desires.

If I have said enough for the moment about direct control by Act of Parliament, I had better interpolate a brief description of the three codes of model bye-laws—the urban, the rural, and the intermediate—to which I have referred. If you say that we still use the nomenclature which I have just condemned, I must admit the charge, with the plea in mitigation that the names of the model codes are understood, have some foundation in the governing statutes, and are not intended to correspond too exactly to districts technically classified. The rural model, then, contains primary requirements for the control of sanitation, but it leaves the width and construction of new streets entirely to the person who lays them out; and as regards walls of buildings, it contains only the rudimentary requirements of a dampcourse and a coping. There is nothing here which could possibly hinder any kind of building.

The urban model is a full series intended for the largest towns which feel it necessary and can and do provide a skilled staff to undertake detailed control of every kind of building. This deals with new streets and with every type of building, for stability and fire prevention as well as purposes of health.

The intermediate model was originally drafted nearly twenty years ago for rural districts which were becoming urban, but experience has shown that it is equally suited for many districts already technically urban, whose character is mainly residential, and even for industrial boroughs where factory building is in the hands of a railway company or other responsible concern. The typical English country town might well be content with a series of the intermediate scope, in which the main stress is laid upon domestic buildings, and even these are governed in general words rather than in detail. The sanitary provisions are still there, for factory and dwelling-house alike. The local authority has a vital interest in these because it owns the sewers, and must know what is going to be turned into them. Moreover, the modern factory has hundreds of square yards of roof producing much more surface water than the old factory on several floors with its small area. Here again the drainage authority must know what is being done. Therefore even the intermediate model provides for plans, but not for detailed sections and so forth of the walls of factories.

Here is the tripartite division, urban, intermediate, and rural; but in contrasting the flexibility of bye-laws with the rigidity of Acts of Parliament, I spoke of a fourth class—that is, where complete freedom is enjoyed. The Departmental Committee thought there ought to be some bye-laws everywhere, but it has never been the policy of the Local Government Board or its successors to say that all local authorities required bye-laws or to press them on particular authorities in the absence of special evidence of local need. In the earliest days the Board were inclined to the view that if the powers given by Parliament for making bye-laws were required at all, this was evidence that the locality required the full series—the original series recommended by your Institute for universal use. But in the course of time this was found to be unnecessary, and the tendency for a long time—especially since the end of the last century—has been to encourage the adoption of much less, wherever possible, and still to leave without bye-laws areas which did not need them.

Now there were in England and Wales, when the Departmental Committee on Building Bye-laws began its work, 1,792 local authorities. Of these 220 had no bye-laws, 58 had bye-laws more than forty years old, and the rest were scattered up and down the calendar.

It is inevitable when you are regulating a subject like this by bye-laws that you should get differences between one district and another. Indeed, that is one object of leaving it to bye-laws, to meet the obvious differences of different districts. This is found not merely in the law of building, but in many matters of public control. I have heard it suggested that there is no more reason why the law of building in different districts should vary than for variations in the criminal law. The parallel is not well chosen: firstly, because the law of building is itself a criminal matter, enforceable by fine and imprisonment in the ordinary courts; and, secondly, because the criminal law (in a wide sense) is not the same throughout the country. No doubt the major offences—murder, forgery and perjury—are punishable everywhere, but much of the work of Petty Sessions and Quarter Sessions lies with provisions of a criminal nature which are special to the district where the alleged offence occurs. Most of you live or work in London: it is no exaggeration to say that in London scores of acts are criminal offences which are innocent, or at any rate not punishable, just across the boundary. This is inherent in the English system, which has grown up through local legislation. The tendency of Parliament and of the Central Government, as I see it, is rather in the direction of leaving more and more to local governing authorities, with or without the general control of some branch of the Central Government. I am quite aware that the existence of these differences involves some trouble to the architect or builder whose practice extends into different districts. From the point of view of a practising architect it is a nuisance that modes of construction which are lawful in one place should be forbidden in another. I have tried to suggest to you whether freedom from this nuisance might not be purchased at the cost of greater troubles still if some of the remedies which I have heard suggested were adopted. Some divergence is the price we pay for local government, and the question how far these divergences should go is one of degree. The Bye-laws Committee referred to undue complaisance in the past on the part of the Local Government Board in assenting to differential requirements in the law of building. On the other hand, the complaint is constant that too little scope is allowed for local differences. Substantially I think there is more ground for the first complaint than for the second. Architects and others who have interests in

THE LAW OF BUILDING

more than one local government area do find that the Board in the past deferred freely to the views of local authorities, and assented to variations from the normal type of bye-law which were not related to real differences of soil or climate or other factors in the locality concerned. I am supported in this by the evidence before the Departmental Committee of local authorities themselves.

The Committee contemplated that the results would be cured by the steady process of the bringing up to date of bye-laws which they advocated, so that in course of time there would grow up "a national code of bye-laws," to use the words of the Leeds City Engineer.

The mischief hitherto has been that not only have bye-laws differed according to the fancy of particular authorities ; they have differed so enormously in date. I spoke of the advantage of getting a modernised law where the Surveyor is a man of modern mind ; in candour I must admit the converse where he or his Council shirk the labour of moving with the times.

But once secure a reasonable measure of modernity, and the trouble caused by having the power of legislation vested in the Councils of different districts will largely disappear. So long as the law is in a form requiring the confirmation of a central Government Department it is likely to follow the same mould ; and if the central authority receives in the future more backing than it has done in the past from the architectural profession, it will be easier for it to resist demands for exceptional bye-laws not related to real needs. It is singular, but true, that almost always where the local architectural profession takes part in discussion of local building bye-laws they are found to support the most extreme suggestions for local divergence, and, indeed, to press that building should be subjected to even more control than the local authority desired. I suggest that there is here room for consideration by your great profession of the policy it wishes to pursue. Nothing satisfactory is likely to be done unless the profession can speak with more or less one voice. I should have thought that the interests of architecture were all in the direction of free trade, of allowing the private architect and even the private builder, so long as he does not outrage the public safety, the greatest possible scope to develop his ideas. Local authorities inevitably, and I doubt not properly, aim towards protection, towards imposing a wise restraint, as they conceive it

in the public interest, upon otherwise unrestrained development. With local authorities protectionist, and the profession desiring free trade, the Central Department holding the scales evenly between the two, I should see great hope for ordered progress.

You will have observed I have assumed throughout that, whatever your method of controlling building is to be, it will be based on definite requirements—be they statutory or in the form of bye-laws.

There can be no doubt, looking to the history and form of the governing Acts of Parliament, that one of the objects of having these matters controlled by bye-laws has been to secure definiteness in the requirements imposed. Discretionary powers such as were given in the Act of 1848 must lead to far greater varieties than any possible system of bye-laws, and the Local Government Board—whose office was staffed in early days by men familiar with both the definite and the discretionary systems—always looked upon certainty as the primary object to be secured. In a Circular Letter of 1877 they laid it down (and they were incessantly repeating the same doctrine) that a person who has to obey the law is entitled to claim a statement, as precise as circumstances warrant, of the requirements which he must obey.

I have in my room, as an heirloom of the position which I hold, a bound volume of correspondence and office minutes concerning the original model bye-laws of 1877. This volume comprises the correspondence between the Board and the Royal Institute of British Architects which I have already quoted, and I have been interested in looking through that correspondence to observe the emphasis which the Institute themselves laid upon the absence of discretion. They say, in terms, "it is not desirable that any discretionary power to depart from a literal interpretation of the bye-laws should be vested in any local authority." The Local Government Board have gone farther, and held that, under the Public Health Acts as they stood, a discretionary power of waiver would be not merely undesirable, but contrary to law. As I told you, the Act of 1875 requires that every bye-law before being submitted for confirmation of the Board shall be deposited for inspection in the district. If it means anything, this requirement implies that the exact provisions which are to become binding on the builder shall be accessible to him in advance, so that he may exercise his right of lodging objections

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

before the bye-laws are confirmed. Here, then, is the clear antithesis between a definite and an indefinite requirement.

On this subject I commend paragraphs 50 to 58 of the Departmental Committee's Report to the notice of those persons who like to speak of the need for some "appeal against bye-laws," whatever that may be. This is a phrase constantly used, but possessing no particular meaning, and therefore very dangerous. It may mean at least two things which are quite distinct.

The phrase "appeal against bye-laws" is commonly used in support of a most mischievous conception—viz., that it should be open to a person affected by a bye-law to contend that on the particular facts of his own case the bye-law need not be obeyed, whether or not it is reasonable otherwise. Such a power was given by Parliament for a limited period in Section 25 of the Housing, Town Planning, etc., Act, 1919. It is not for me to speak disrespectfully of this. But this I can say: such a power leads to the retention of masses of obsolete and oppressive bye-laws. I should hesitate, for fear of exaggeration, to say how many local authorities have deferred a revision of their bye-laws, which was needed in the public interest, because this safety valve enabled them to deal with an immediate emergency; but without the smallest fear of contradiction I assert that a renewal in principle of legislation of this kind, beyond the period of emergency, would be one of the greatest disasters which could befall the building trade or your profession. Parliament itself limited this provision to a period of three years from the passing of the Act; it extended it this year to the end of 1923, and then it will end, unless Parliament otherwise determines. And I hope that it will be the last experiment with an "appeal against bye-laws" in the foregoing sense. If a bye-law is good, let it be obeyed; if bad, let it be amended so that everyone can benefit alike. To create machinery for avoiding its application to individuals is to abandon the great benefit of certainty, to divide the forces of reform, and to impose upon individuals who are adversely affected the burden of appealing in each case against a requirement which *ex hypothesi* should not be there at all.

That is one sense in which the phrase is used. To others it means something very different, and not open to objection, which has been already recognised by Parliament in the earlier Housing

Act of 1909. That Act provides that a bye-law which unreasonably impedes the housing of the working classes may be revoked by the Central Department; and if those who speak of an "appeal against bye-laws" mean that the principle recognised in regard to working-class houses should be made more general, and made workable in practice—that is, that there should be improved machinery for claiming that a bye-law is unreasonable and ought to be repealed or revoked—I should not object. All the witnesses from the Local Government Board before the Departmental Committee were in favour of such an amendment of the law, and the Committee themselves named it as one of the two matters in which amending legislation was at once required. His Majesty's Government have not, in their other preoccupations since 1918, when this Report was made, been able to introduce a Bill, but here is a fruitful line for the Institute's inquiries to follow, and a remedy which would probably be non-controversial. The Report of the Departmental Committee on Building Bye-laws was signed by a Labour member and a Conservative member of the then Coalition Government and by a prominent Liberal member of the House of Commons. Legislation, therefore, on these lines might be expected to meet with general agreement. The Committee itself was one of the strongest for this purpose which have ever been assembled.

Best of all for recommending the Report to the public, it had as nearly as possible no official element. When the Committee was first constituted there was only one official member, the late Sir Walter Jerred, Assistant Secretary of the Local Government Board. As the Committee record in their Report, the pressure of other duties prevented him from attending meetings after a comparatively early stage, although he read and agreed with the Chairman's draft Report.

Half-way through the Committee's deliberations one of the members, Mr. Raymond Unwin, was offered and accepted an official post, but Mr. Unwin's worst enemy never, I should think, charged him with owning an official type of mind.

This Report, then, was almost without official taint, and I submit to you that the more you find difficulties in the existing law the more it behoves you to study the remedies suggested—whether or not you afterwards support them.

You will, I venture to predict, find it not without significance that witness after witness favoured the

THE LAW OF BUILDING

continuance of the existing legal system, provided that certain amendments were secured.

It is rather sad that this Report, the only attempt made in this country to set out in coherent shape the law, the history, and the practice of the control of building by local authorities, should be so little known. It is solid reading, and not meant to be taken up in an odd half-hour ; but its study is essential to an understanding of the English law of building and to the framing of a system for the future. If I may summarise it in a few sentences, I should do so thus :

1. The system adopted in 1858 and since maintained, by which the local authorities who have to enforce the law are also to make the law, has on the whole worked well. No case has been made out for scrapping the authorities or the system.

2. Experience since 1875 has revealed various gaps and possibilities of overlapping which ought to be set right.

3. Experience has in particular shown that building law, like every other invention of the human mind, grows old and needs renewal. With the progress of invention that law may grow obsolescent quickly, and it is essential that a central authority in close touch with professional opinion, and in a position to study the practice and requirements of the country as a whole, should be enabled to revoke local laws which have become oppressive.

4. Parliament recognised this in 1909, but the enactment has proved to be so badly drawn as to be unworkable in practice.

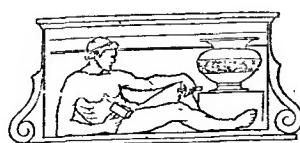
If this section could be brought up to date and made to work, a large part of the difficulty which now exists would vanish.

These are the four main points. The Committee

made 23 recommendations, and I will not drag you through them all. Some are of more weight than others, but in any event you will find your 6d. well invested. I had come so far in the first draft of this paper when I thought it would be as well to read it, to obtain another opinion, and see how long the reading took. When I reached this point, at which the paper so far ended, I was told, "Yes. Quite interesting, but you have not said anything very encouraging as yet."

Well, I hoped I had, but at least let me conclude upon a cheerful note. So far as the Central Department is concerned, what we want is more co-operation between architects, local authorities and ourselves. We have our avenues of communication with the local authorities up and down the country, and I am glad to think that some misunderstandings are being removed, and that on the whole the tone of the relations between the Department and the local authorities is improving. But we still get much less help than might be possible from the architectural profession, and I should like to end with a plea that architects who find themselves in difficulties should not hesitate to make them known to us. To that, however, I will add this proviso, that first of all they shall try to understand the point of view of the local authority and arrange their difficulties locally. If that proves impossible, let us have information on the difficulty. If it is a matter of interpretation, we may be able, if both sides agree, to decide it one way or the other. If a bye-law is oppressive, we may be able to take steps for its repeal. Nothing can be lost, much may be gained, by letting us know in detail what your troubles are. We hear of grievances unspecified, we find on many sides a general and sweeping condemnation ; let us have the facts.

The Discussion on Mr Shelley's Paper will be published in the next issue of the JOURNAL..



JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The R.I.B.A. War Memorial

"Two hundred and thirty Fellows, Associates and Students of the Royal Institute were killed. Here is the list of their honoured names—no mere census sheet, but a Roll of Honour which records achievement—the same act of sacrifice accomplished by every one of them, but each in its different way, and each with the grandeur of personality in its suffering and abnegation." (From Lord Crawford's address at the unveiling ceremony.)

LIST OF NAMES ON THE TABLET

HONORARY FELLOW.

F.M. EARL KITCHENER OF KHARTOUM.

FELLOWS.

CORBETT, A. E.
FLETCHER, H. P.
FRANCE, A. A.
HALLEY, J. M. W.
LIVESAY, G. A. B.
LINES, R. W.

ASSOCIATES.

ADAMS, L. K.
AITKEN, A. D.
ALEXANDER, G. L.
BARROW, S. E.
BARRY, F. R.
BAUSOR, T. P.
BENNETT, JAMES.
BENNETT, P. D.
BINNING, ALAN.
BOWNASS, J. E.
BRAITHWAITE, J. E.
BULL, J. W.
CABLE, J. S.
CALLENDER, G. W.
CARMICHAEL, D. A.
CLARK, W. L.
COWDELL, C. J. M.
CUBEY, J. B.
DAVIES, J. C. G.
DUNN, G. M.
DURRANT, A. M.
EATON, C. W.
FINNING, L. J.
FRASER, H. H.
GIBSON, E. H.
GORRINGE, W. S.
GRIFFIN, D. M.
GRISSELL, F.
GROUND, J. K.
GUTTERIDGE, R. H.
HADWEN, N. W.
HARTMANN, C. H.
HILL, CLAUDE E.
HONAN, M.
HOOLEY, T. W.
HORSFIELD, J. N.
HOUSTON, W. W.
HOYLE, WILFRED.
HUNTER, G. E.
HUTTON, L. DE H.
IXER, S. H.
KAY, G. A.
LEECH, W. L. B.
LOVELL, C. E.
LOWES, A. E.
MACKENZIE, G. M.
MANN, H. W.
MEIKLEHAM, D. L.
MILNE, DAVID.
MINOR, PHILIP.
NOTLEY, A. C.

OWEN, G. B.
PAPWORTH, A. W.
PECKHAM, A. N.
PETCH, E. S.
PHILLIPS, L. A.
PHILP, R. M. H.
PIERCE, A. P. H.
PILLING, P. C.
PONTON, H. F.
PYWELL, W. J.
RIGG, W. A.
ROGERS, C. W.
RUSHWORTH, T. S.
SAGAR, W. H.
SHEARS, R.
SHIELD, J. E. C.
STONE, G. M.
STONEHOUSE, C.
STUBBS, E. W.
STURGEON, R. V.
TAYLOR, H. S.
TAYLOR, J. H.
TOONE, J. A. E.
WALKER, R.
WARRY, J. L.
WATT, J. D. D.
WEBB, P. E.
WHEATLEY, J. H. L.
WHITELEY, C. T.
WILLIAMS, S. H.
WINCH, A.
WRIGHT, C. L.

LICENTIATES.

ABERCROMBIE, B.
ATKINSON, B. E.
BARCLAY, F.
BARKER, T. C.
BEATTIE-BROWN, W.
BLACKBURNE-DANIELL,
G. F.
BOWIE, G. P.
CAUDWELL, A. C.
DICKEN, A.
EDWARDS, J. P.
ELLIS, E. M.
FLOWER, V. A.
GARRATT, E.
GROTE, A. L.
HARRISON, C. R.
HENMAN, C. H. R.
HOOKWAY, G. J. F.
JACKSON, C. E.
JANE, WILLIAM.
METTHAM, J. A.
O'BRIEN, E.
PHILLIPS, A. M.
PULLIN, H. C.
SKIPWITH, F. P.
SMITH, J. B. P.

HONORARY ASSOCIATE.

SIR HAY FREDERICK DONALDSON.

SUTHERLAND, G. A.
TINNISWOOD, A.
TUCKER, A. H.
WILLIAMS, W. H.
WILSON, J. H.
WINGATE, A.

STUDENTS.

ADAMS, H. E.
AITKEN, J. H.
APPLEBY, S. D.
BAGSHAW, A. S.
BELL, E. A.
BENNER, W.
BEVILLE, A. G.
BODDINGTON, F. E.
BOOKER, G. A.
BONE, J. C.
BOWES, ROY.
BOWMAN, W. H.
BRUNICLE, H. C.
BUTTERWORTH, W. C.
CALDER, G. J.
CALVERT, A. C.
CHALKLEY, T. H.
CHARD, C. N.
COLLINS, S. T.
COSER, G. A.
CRAWSHAW, T. H.
CROSTHWAITE, W. J.
CRUICKSHANK, D. E.
DANN, WILFRED.
DAVIES, H. F.
DAVIES, W. E.
DAVISON, W. R.
DICKINSON, J.
DIXON, C. B.
DOE, E. H.
DOWSETT, T. W.
EATON, A. R. C.
FAUSETT, S. S.
FERNYHOUGH, S.
FISHER, W. S.
FOALE, W. E.
FORD, L. S.
FOSTER, L.
FRANKLAND-BELL, E. N., v.c.
FREAKER, A. I.
FROMANT, E. G. D.
FULTON, A. W.
GASCOYNE, C.
GASKELL, R. R.
GORDON, D. J.
GROVES, F. N.
HARDMAN, A. T.
HILL, H. O. W.
HILLYER, W. H.
HORSNELL, A. G.
HOSSACK, I. A.
HOUGH, T. B. D.

THE TABLET, DESIGNED BY MR. TRENWITH WILLS [A], WAS UNVEILED BY LORD CRAWFORD ON THE
20TH NOVEMBER (SEE JOURNAL, VOL. XXX., No. 2).



1000
1000 HATTS
1000 HATTS
1000 HATTS

G. H.
A. D.
P. R.
T. P.
W.
H. C.
F. R.
J. B.
E. A. E.
D. JOHN
O. W. N. J.
C. T.
L. S. L.
H. F.
R.
C.

A Note on Sir Ernest George's Life with a List of his Principal Works

Sir Ernest George was born in London on 13 June, 1839. He was a son of John George of Streatham, "a man of Kent," as Sir Ernest George has written, "who was engaged in the wholesale iron trade in Southwark." He was educated at Brighton and Reading. He served his articles with Samuel Hewitt, who had offices in the Adelphi, and entered the R.A. schools, where he gained the Gold Medal for Architecture in 1859, the subject being a Metropolitan Hotel enclosing a court from which it was entered. He started practice in partnership with the late Thomas Vaughan, who died a few years later. He was afterwards in partnership with Mr. Harold Peto, and on his retirement, with Mr. Alfred B. Yeates [F.], Sir Ernest was elected an Associate of the Institute in 1861, and a Fellow in 1881. He was presented with the Royal Gold Medal in 1896; and was President during the sessions of 1908-1909 and 1909-1910. He was elected an Associate of the Royal Academy in 1910. Sir Ernest George married, in 1866, Mary Allan Burn, daughter of Mr. Robert Burn, late of Epsom, but after ten years he was left a widower. Two daughters and sons survive him.

Sir Ernest George died on 15 December, and his funeral took place at Golder's Green Crematorium on 18 December. Canon C. H. Robinson, his son-in-law, officiated. In addition to the members of the family, there were present Sir Aston Webb, President of the Royal Academy, Sir Luke Fildes, R.A., Mr. H. Hughes-Stanton, R.A., Sir George Frampton, R.A., Sir John Burnet, A.R.A., Mr. T. E. Collcutt, Sir Isidore Spielmann, Sir Alfred Brumwell Thomas, Mr. Mervyn Macartney, Mr. John W. Simpson, Mr. Harold Peto, Mr. Alfred B. Yeates, Mr. Guy Dawber, Colonel Raymond, Mr. Andrew Prentice, Mr. W. D. Caroe, Mr. H. H. Wigglesworth, Mr. E. P. Thompson, Mr. Halsey Ricardo, Mr. Louis Ambler, Mr. T. Blake Wirgman, Mr. W. A. Pite, Mr. Herbert Reed, Mr. Arthur Keen (representing the Royal Institute of British Architects), Mr. F. R. Yerbury (Secretary,

Architectural Association), Major Corlette (representing the New South Wales Institute of Architects), Mr. Charles L. Hartwell, Mr. M. Loudan, Mr. W. W. Scott Moncrieff, etc.

PRINCIPAL WORKS.

[IN PARTNERSHIP FIRST WITH MR. THOMAS VAUGHAN AND LATER WITH MR. HAROLD PETO.]

Premises for Henry Sotheran, 36 Piccadilly; Rousdon Mansion, Devonshire; Houses at Harrington Gardens and Collingham Gardens; The Ossington Coffee Tavern, Newark; 46 and 47 Cheapside; Buchan Hill, Mansion, Sussex; Cottages at Leigh, Kent; Stoodleigh Court, Plymouth; Woolpits, Surrey; Redesdale Hall, Moreton-in-the-Marsh; Batsford Park Mansion; Dunley Hill, Dorking; Glencot, Wells; Redroofs, Streatham Common; Albemarle Hotel, Piccadilly; Shiplake Court; 6 Carlton House Terrace, alterations and decorations; Premises for Messrs. Goode, South Audley Street; Poles Mansion, Ware; 40 and 47 Berkeley Square; The Yellow House, Palace Court; West Dean, Sussex, alterations and decorative work; Motcombe Mansion, Dorsetshire.

[IN PARTNERSHIP WITH MR. ALFRED B. YEATES.]

North Mymms, Hatfield, additions and decorations; 49 Princes Gate; Shockeckwick House, Bath, additions and decorations; Cawston Manor, Aylsham; Claridge's Hotel, decorations; Edgeworth Manor, Cirencester; Holwell, Hertfordshire; Welbeck Abbey, rebuilding after fire; The Crematorium, Golder's Green; Crathorne Hall, Yarm-on-Tees; Foxcombe, Boar's Hill, Oxon; 77 and 78 South Audley Street; Eynsham Hall, Oxon; Ruckley Grange, Shifnal; Busbridge Hall, Godalming; Queen Alexandra's Court, Wimbledon; Royal Exchange Buildings, E.C.; Patteridge Mansion, Bury, Luton; Maristow, Devon, additions and decorations; Royal Academy of Music, Marylebone; Premises for Messrs. Garrard, Grafton Street; 16 Bruton Street, alterations and decorations; Whiteley Homes, various blocks of cottages; Southwark Bridge; Design for Palace at Indor for the Holkar Villa, Antibes.

The Late Sir Ernest George, R.A.

Past President R.I.B.A., Royal Gold Medallist.

BY THE PRESIDENT (MR. PAUL WATERHOUSE, M.A.)

If ever the word gentleman meant a man of perfect gentleness, that man was the late Sir Ernest George. In his passing away many of us here have lost an inspiring master. Some were actually his pupils, others were followers of his works in the sense that men of his artistic strength compel the homage of sympathy ; others again, including most of his contemporaries and a great multitude of his juniors, have known, felt and loved the personal character which was so deeply expressed in the character of his work. In few men has the personality been so close to the expression in architecture ; and it is this close union of the artist's own spirit with the spirit of his achievements in building craft which makes me speak of the gentleness which infused both. He was a great pioneer, and a pioneer of the right kind. No man of his epoch was more filled with the obligations of truth to tradition. Yet no man filled this obedience to the past with a more conspicuously personal motive. It is my lot to pass almost daily one of his greater buildings. It is a piece of monumental architecture standing somewhat apart from the domestic work which made up the bulk of his successful achievements. It has the formal balance demanded by its classic pose, it has in its detail and in its composition all the elements that make it a true descendant of Rome, yet

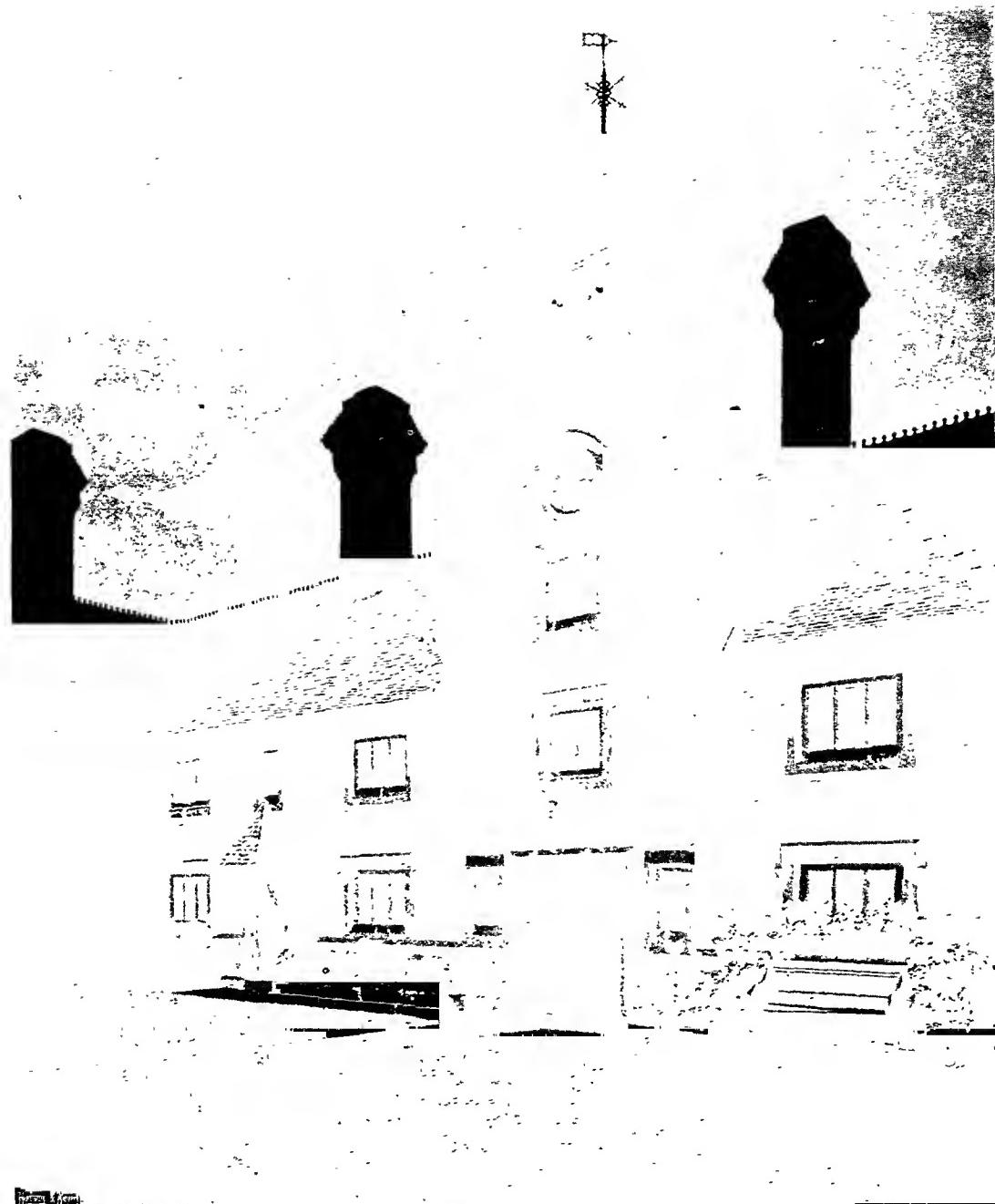
every brick and stone of that building says its greeting to me in a language which is like the very voice tones of the friend we have just lost.

He was a great man, great with a greatness which even his almost startling modesty could not and must not obscure. He won our Gold Medal by incontestable deserts, and received it with an enthusiasm on the part of the givers which had in it no trace of hesitation : for his leadership as an artist was beyond question.

To some men whose utterances in speech and writing are restrained, expression in the tender art of water-colour is a great and rather mysterious outlet of language. This language needs sympathetic interpretation by the reader, but those who have learned and practised such interpretation will admit that George had that language.

In his own drawings of his own buildings, and perhaps even more in his able presentations of other scenes, there is a writing which is not far from poetry.

The men who can ever have had any bitter thought of such a character must be nonexistent or very rare. Those to whom his kindness of heart, of look and of voice are treasured memories, must be legion. They are a throng to which I, for one, am proud to belong.



*Reproduced by kind permission
of "Country Life"*

WHITGIFT HOSPITAL, CROYDON

Whitgift Hospital, Croydon

Among the buildings of historic and artistic interest possessed by Croydon one of the most notable is the Whitgift Hospital, which occupies a prominent position in North End, the main street of the town. Queen Elizabeth, during her reign, appears to have paid several visits to Archbishop Whitgift, whose palace was situated in Croydon : and what is now known as Whitgift Hospital was built by that ecclesiastic towards the end of his life for the benefit of poor and aged people of Lambeth and the town. The date of its construction is 1599. The buildings are two storeys high, and occupy the four sides of a quadrangle. They include quarters for 50 people, a chapel, great hall and other interesting features. While it has been somewhat tampered with in restorations that have taken place from time to time, it remains a generally complete example of an Elizabethan building of considerable charm and very expressive of its purpose. The value to Croydon of having a building of such interest and beauty as this, situated in a prominent position in the town and drawing the attention of countless people to the historic importance of Croydon and its part in the life of the Elizabethan period, is very considerable, and there can be no question that such a building has a distinctive value extending far beyond the limits of the town in which it is situated.

It appears that for a long time a section of townsmen (as represented by certain of the Borough Councillors) has desired the sweeping away, or at least the partial demolition, of Whitgift Hospital. Presumably some financial or other material advantage is expected to result from such a change. So strong has been the desire that there has been a deliberate setting back of relatively new buildings in George Street, adjacent to the Hospital, in order to make it appear that the old building was an obstruction projecting beyond the general line of the road. A similar position has been deliberately created in recent years on the return front in North End, where, instead of the line of Whitgift Hospital being adopted as the new improvement line for frontages of the adjacent reconstructed premises, their main wall has been set back several feet, with the obvious intention of bringing about a similar situation in North End to that which now obtains in George Street. There does not seem to be the slightest excuse for such an action, except to create a situation that might assist those who wish the Hospital to be destroyed, for it is clear that the sweeping away of Whitgift Hospital is not in any way necessary to effect the road improvements that the circumstances require.

During the last 20 or 25 years there has fortunately existed in Croydon a very active and enlightened Whitgift Preservation Committee which has vigorously opposed interference with the old buildings. Between the years 1909 and 1912 it successfully set aside the Croydon Council's destruction scheme and, with the assistance of the Local Government Board, which showed splendid public spirit in the matter, induced the Council to adopt the Defence Committee's scheme for the setting back of the "bulge" in the line of road that occurs on the western side of North

End, opposite the Hospital, together with other frontage improvements calculated to assist traffic difficulties effectively. Apart from its obvious merits in the way of road improvement, this scheme avoided interference with the Whitgift building. On the basis of the plan formally adopted by the Croydon Council in 1912, and approved by the then Local Government Board, grants of money have been made, and one would have thought that the Council was in honour bound to carry it into execution as opportunities presented themselves. Recently, however, there have been indications of a deliberate attempt to set the approved scheme aside and to revert to the old purpose of lopping off the Hospital in order to spare modern buildings, devoid of any interest, that exist west of it on the opposite side of the road. It is known that the Croydon Council is promoting a Bill in Parliament to obtain powers for sweeping away the Whitgift building. Anything more short-sighted in the interests of what really matters in the town of Croydon can hardly be imagined. An inspection of the conditions on the site, or of a plan of the road, makes it obvious to anyone competent to judge the situation that the scheme proposed by the Preservation Committee, and eventually adopted by the Croydon Council and approved by the Local Government Board in 1912, represents from every point of view the obvious way of dealing with the traffic conditions in this part of the main road, and that it also helps to solve the problem that arises from the restricted condition of Crown Hill, a branch road that enters the highway at this point.

On hearing of the course now proposed by the Croydon Council the Royal Institute of British Architects took immediate action, and on its initiative a conference was held at which the whole situation was carefully reviewed by representatives of the Royal Institute, the Whitgift Hospital Preservation Committee, the Society for the Protection of Ancient Buildings, the Town Planning Institute, the London Society, the Town Planning Committee of the R.I.B.A., the National Trust, the London Survey Committee, and the Surrey Archaeological Society. As a result all these bodies are not only agreed with regard to the local and national importance of preserving Whitgift Hospital as a valuable relic of Elizabethan architecture, but have decided to support the 1912 scheme as providing a practical and effective road improvement which meets traffic requirements without the necessity for any interference with the Hospital. They have resolved, moreover, to take further steps to emphasise the importance of this view in quarters where it may receive due weight, and hope that the valuable principle of avoiding interference with historic and beautiful buildings wherever possible may be increasingly supported by public opinion.

F. R. HIORNS [F.]

The Croydon Borough Council has been invited to meet representatives of the Royal Institute to discuss alternative measures which would have the object of preserving the Hospital intact.

Review

THE ADMINISTRATION OF THE TOWN PLANNING DUTIES OF LOCAL AUTHORITIES. By Henry R. Aldridge. 8s. 6d. net. National Housing and Town Planning Council, 41, Russell Square, W.C.

Mr. Aldridge's new book on Town Planning Procedure is a supplement to his earlier book on *The Case for Town Planning*, published in 1915, and reviewed in the R.I.B.A. JOURNAL at the time. (Vol. 23, p. 65.)

Probably no one has done more to popularise town planning than Mr. Aldridge, and it is very largely due to his powerful advocacy that the compulsory provisions of the Housing, Town Planning, etc., Act of 1919 are now on the Statute book.

His latest book on the *Administration of the Town Planning Duties of Local Authorities* will therefore carry great weight with members of Councils and others who have to do with the administrative side of town planning, as apart from the technical side of the question.

The little volume just published forms a handy guide to the legislation and procedure regulations issued since the passing of the first Town Planning Act in 1909.

It consists primarily of a reprint of the town planning sections of the 1919 Act, with a short statement of the scope and character of the new town planning powers and duties. Then follow copies of the various circulars and regulations which have been issued by the Ministry of Health relative to Town Planning.

A very useful chapter follows as to procedure to be followed in the submission of town planning schemes, with drafts of the various resolutions to be passed at successive stages in the preparation of the scheme.

The development of regional planning in various parts of the country is already bringing into play a spirit of co-operation between adjoining districts which is essential in considering so wide a matter as town planning. Even in such an area as Greater London, the narrow parochial spirit is, however, not altogether a thing of the past, and it is well for all authorities to be reminded that although the compulsory provisions of the Act of 1919 apply only to urban districts with a population of more than 20,000, there is power also for the Ministry of Health to require a town planning scheme to be prepared for any district, whatever its size.

Mr. Aldridge, as Secretary of the National Housing and Town Planning Council, is naturally concerned with the reformation of housing conditions in our towns, and he points out that, far-reaching as are the provisions of the Town Planning Acts of 1909 and 1919, these Acts deal only with "land which is in course of development or appears likely to be used for building purposes." The already built up areas of our towns

cannot, apparently, be included, or so, at least, the Ministry are advised. If this is so, as Mr. Aldridge says, "the words 'Town Planning' are to some extent a misnomer. Local authorities in Great Britain have not as yet been given power to take town planning action in the full sense; they are only empowered to prepare plans for areas which are at present unbuilt upon."

"It is true that when it is essential to the proper planning of a new and unbuilt-on area powers are given to local authorities to include in their town planning schemes certain parts of the adjacent built-up area.

"Power is also given to local authorities to include in a town planning scheme the gardens of existing houses on the borders of towns where there is a danger that these houses may be swept away and the land used for other purposes.

"But, subject to these exceptions," says Mr. Aldridge, "the present position is that local authorities cannot be said to possess the power to prepare a town plan in the sense that they can remodel the whole town from the centre to the circumference in accordance with a well-devised town planning scheme."

Local street widenings can, of course, be effected, but in many cases these require special legislation. Slum areas can, however, now be acquired under the provisions of Section 9 of the Housing, Town Planning, etc., Act of 1919, at a price representing the cleared value of the site, although the working of this section in actual practice has yet to be ascertained.

Further legislation will undoubtedly be necessary to provide for the proper replanning of congested areas, and the present annual amount of £200,000 allocated by the Government for grants in aid of slum clearances is obviously entirely inadequate. It is, however, a beginning, and in view of the stringency of national finance, it is at any rate a step in the right direction.

An interesting *résumé* is given of a typical American zoning ordinance, and also a translation of the French law of 14 March 1919 making town planning compulsory for all towns with a population of 10,000 or more people. The Act also applies to all towns in the Department of the Seine, and to towns between 5,000 and 10,000 population which have increased more than 10 per cent. in the last ten-year period, as well as to all holiday and health resorts, and to new towns and villages. The Act can also be applied even to "groups of buildings possessing picturesque, artistic or historic characteristics." A Departmental Commission for the Planning of Towns and Villages is now established for each Department of France, and comprises not only official members, but representatives of architectural and other societies.

Mr. Aldridge's latest book will be of service as showing clearly the road which has yet to be travelled in securing further legislation to deal with the inner area of our towns.

W. R. DAVIDGE [F.]

THE BLUEING OF CONIFEROUS TIMBER

The Blueing of Coniferous Timber

BY MALCOLM WILSON, D.Sc., F.R.S.E., LECTURER IN MYCOLOGY IN THE UNIVERSITY OF EDINBURGH

Mr. J. Ernest Franck and Mr. Charles Woodward, the Honorary Secretaries of the Science Standing Committee, write :—

"The attention of Members of the Institute is drawn to the following paper on the 'Blueing of Coniferous Timber,' by Professor Malcolm Wilson, D.Sc., F.R.S.E., of the Royal Botanic Garden, Edinburgh.

"This paper was read before the Royal Scottish Arboricultural Society, in whose transactions—viz., Vol. xxxvi., Part 1, July, 1922, it has already appeared.

"This particular study is no doubt of interest to members, and it came before the Science Standing Committee as one of the results of their study of Disease in Timber which embraces a subject of more particular moment to our members, namely, 'Dry-Rot: Its Causes and Effects.'

"The subject, with the assistance of the authorities at South Kensington, has been before the Science Standing Committee for the past three years, and was taken up at the particular request of Mr. Alan E. Munby, F.R.I.B.A., the then Chairman.

"The Committee wish to thank Professor Malcolm Wilson for sending us the paper, and the Royal Scottish Arboricultural Society for their permission to print it in our Journal."

Although the "blueing" of timber is well known both to foresters and timber merchants, no account of its distribution, or of the fungi which cause it, has yet been published in this country. In the books dealing with the diseases of trees and timber the "blueing," if mentioned at all, is usually dismissed very shortly with the statement that it is due to *Ceratostomella pilifera*, Fries., an ascomycetous fungus. This disease of timber has been known for some time both in the United States and in Germany, and accounts of the causal fungi and their effects on the wood have appeared in both these countries.

There is a serious decrease in value of timber brought about by "blueing." In this country "blued" wood is priced considerably lower than healthy timber and "blued" samples are rejected when the timber is required for special purposes; "blued" pit-props show a considerable depreciation in value. In the United States blue-stained boards are graded lower than the unstained, and since much of the staining develops in otherwise high-grade material the financial loss is serious. In Germany timber when "blued" diminishes considerably in value, and is accepted unwillingly for such purposes as house-building, ship-building, for sleepers and even for firewood. Its value for furniture construction is especially diminished, for the dark-coloured streaks are particularly obvious when it is used for that purpose; generally speaking, infected timber diminishes 25–50 per cent. in value. It has been estimated that in Sweden the depreciation in value of infected timber is 14 per cent., and according to the regulations for the export of timber from the country "blued" material must not be included amongst first-grade samples. In Russia, where transportation is long and difficult, the timber often lies for some time in the forest before removal, and consequently the damage caused by "blueing" is very serious.

In view of the wide distribution of the disease in Britain,

and the considerable quantity of infected timber now coming into the market, it is proposed, in the present note, to give an account of the investigations already carried out on this disease, and to refer to the work of Dr. B. D. Macallum, who has recently worked out the life-history of one of the species concerned—*Ceratostomella piceae*—in Edinburgh.* By the courtesy of Professor Hudson Beare I am also enabled to publish the results obtained by him during the late war, while testing the strength of specimens of timber of Scots pine attacked by the disease.

Hartig referred to the "blueing" in his work on the destruction of timber by fungi, and also in his book on the diseases of trees; he showed that the infected wood contained brown hyphae in its cells, especially in the medullary rays, and that these belonged to *Ceratostoma piliferum*, Fuchel. Neither he, nor the investigators mentioned below, have been able to explain how the blue colour is produced, for the walls of the cells are not coloured by the contained hyphae. Two suggestions have, however, been put forward in explanation, the first being that the brown colouring matter of the fungus contains a small amount of blue pigment, whose colour is transmitted by the cells more readily than the brown colour; and the second, that the coloration is an entirely physical phenomenon, depending on the distribution of the large number of small hyphae in the wood, and is comparable to the blue colour of the sky produced by the suspended particles in the air.

The diseased timber has a very characteristic appearance. The whole of the specimens may be affected, but frequently the "blueing" occurs in patches and streaks, and is confined to the sapwood. The actual colour of the wood in the early stages of attack varies from grey to blue or greenish-blue, but later on the colour deepens, and the timber may become greyish-black, due at least partly to the formation of numerous fungus fructifications on its surface. During the early stages there is little apparent alteration in the physical condition of the timber, but, if the disease continues to develop, the wood softens and ultimately a certain amount of rotting goes on.

The disease is chiefly due to certain species of *Ceratostomella*, previously included under the name *C. pilifera*, but a number of other fungi are often present. The species of *Ceratostomella* are characterised by small fructifications, the perithecia, which are barely visible to the naked eye and are provided with long thread-like necks. Timber cut and stacked in the open in the forest is particularly liable to be attacked, and up to the present the disease has been observed in Scotland in the timber of Scots fir, spruce, and silver fir, although that of other species of conifers is also likely to become infected. It may be pointed out that the species of *Ceratostomella* usually only attack coniferous timber, and that the bluish-green rot of timber of hardwoods is due to an entirely different fungus, *Chlorosplenium aeruginosum*.

* An account of this work will shortly be published in the *Transactions of the British Mycological Society*.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Von Schrenk* and Hedgecock† have investigated "blueing" in the United States, especially in the case of the timber of the western yellow pine (*Pinus ponderosa*). The latter investigator has described a considerable number of species of *Ceratostomella* which cause "blueing" in the timber of various conifers and also a number of hardwoods. These are distinguished partly by differences in the shape and size of the perithecia, but chiefly by variations in the form of the conidial fructifications which are produced by them in great abundance. He also describes the blackening of timber by species of *Graphium*, a genus producing only conidial fructifications consisting of a stalk made up of a number of parallel hyphae and a swollen head which bears the conidia. Münch,‡ in Germany, has given a very complete account of the fungi producing "blueing" in coniferous timber. He finds that *Ceratostomella pilifera* is made up of a number of species, and distinguishes the following :—

1. *C. Pini*, the commonest species, which only attacks timber of *Pinus sylvestris* and quickly produces a decided blue coloration. The bark of trees infected by this species separates from the wood, and the latter becomes covered by a black mass of mycelium, embedded in which are the rather short-necked perithecia, and also elongated sclerotium-like bodies consisting of brown cells; a second type of conidium resembling that of *Cladosporium* is also present.
2. The *Pilifera* group with long-necked perithecia, which includes :—*C. piceae*, found commonly in the sapwood of spruce and fir; in this, in addition to perithecia, conidial forms of the *Graphium* and *Cladosporium* types are also present. *C. cana* and *C. coerulea* on pine wood closely resemble *C. piceae*, but there is no *Graphium* form in the life-history of *C. coerulea*.
3. *Endoconidiophora coeruleascens* resembles the three previous species but possesses hairy perithecia, and is characterised by its conidia which are produced in a short row at the ends of upright conidiophores; the stage was previously known as *Chalera Ungerii*.

Of the above species two, *Ceratostomella piceae* and *C. pini*, have been found in this country by Dr. Macallum in "blued" timber of the Scots pine. The development of *C. piceae* has been worked out in detail by this investigator, and her results with regard to the conidial stages present confirm those of Münch, both *Graphium* and *Cladosporium* types being definitely part of the life-history. *C. piceae* does not appear always to produce the blue staining characteristic of the other species, and in Scotland spruce timber may be quite unstained even when perithecia occur thickly all over the surface.

Little information is available as to spore distribution. The ascospores in *C. piceae*, after discharge, are found at the end of the perithecial neck in a mass of shiny yellowish

* Bureau of Plant Industry, U.S. Dept. Agriculture *Bull. 36*, 1903.

† "Studies upon some Chromogenic Fungi which discolour Wood," Missouri Botanical Garden, 17th Annual Report, 1906, p. 59.

‡ "Die Blaufäule des Nadelholzes," *Naturwiss. Zeitschrift Forst- und Landwirtschaft*, 1907-8.

slime which is insoluble in water. Conidia of the *Graphium* type are found in the drop of liquid borne on the head of the fructification, while those of the *Cladosporium* type develop freely both on special conidiophores and on the ordinary mycelium. It is improbable that the ascospores are distributed by wind, but the conidia, after drying, may be spread by this method. The conidia of *Endoconidiophora coeruleascens* are sticky, and Münch suggests that they may be carried by insects. Von Schrenk, however, failed to demonstrate the presence of spores of *Ceratostomella* on bark-boring beetles. Judging from the rapid infection of timber stacked in the forest, it appears probable that some distribution by wind takes place.

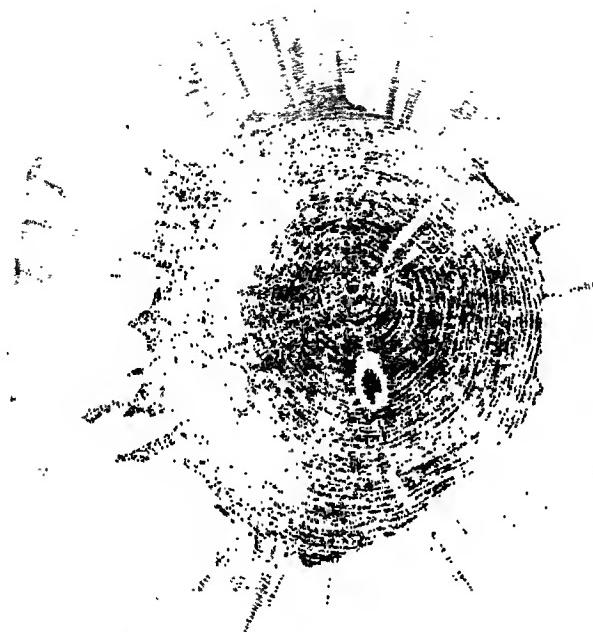
The effect of species of *Ceratostomella* upon the tissues has been described by several investigators. The hyphae, which are at first colourless, are found principally in the medullary rays and resin canals, where they live upon the contents of the parenchymatous cells, dissolving the starch grains and destroying the walls, and becoming so abundant as to fill up the entire ray. The older hyphae turn brown, and with the first sign of the brown colour the blue coloration of the wood begins. Apparently the cellulose walls are not decomposed by the fungus, but the hyphae pass into the tracheids from the medullary rays, sometimes penetrating the tangential walls by bore holes but more often passing through the simple or bordered pits. In these cases, it is evident that a certain amount of decomposition of the strongly lignified walls must go on. As a general rule the hyphae do not grow into the heartwood, probably on account of the absence of food materials from this part of the tree.

Münch has carried out a large number of experiments to determine under what conditions wood of pines and firs becomes infected by the blue-stain fungi. He found that the various species of *Ceratostomella* readily developed on the surface of fresh sapwood of trees felled in winter, but that the hyphae only penetrated to a small distance into the timber, and that the latter did not become discoloured. It was only after the timber had lost a considerable percentage of its moisture that it was penetrated by the fungus and took on the blue coloration. By further experiments he showed that the non-penetration of fresh timber was determined by lack of oxygen, and that after loss of water and the consequent entrance of air the fungus readily grows throughout the wood. The "blueing" is rapidly produced when the timber has lost 10-20 per cent. of its moisture, and even goes on when the wood is in a comparatively dry state. In relatively damp wood the mycelium develops most freely in those parts of the sapwood which are richest in air; in consequence, the staining is most strongly marked in the portions immediately bordering on the heartwood. He points out that in practice any conditions which preserve the moisture, such as the retention of the bark on felled trees, will tend to prevent the attack, not only of *Ceratostomella* but also of other wood-destroying fungi, the growth of which is probably inhibited in the same way by the lack of oxygen. The practice of keeping timber in water is one of the best methods of preservation, not only against "blueing" but also against the attack of various wood-destroying fungi, for under these conditions the supply of air in the wood is reduced to a minimum.

THE BLUEING OF CONIFEROUS TIMBER

It is well known that timber stacked in the forest for some time is especially liable to become infected, and this is what the above results lead us to expect, on the assumption that some at least of the spores of the fungi concerned are air-borne. Timber stored in a drying shed provided with a roof but open at the sides would be less likely to become infected, especially if the pieces were stacked so as to allow of the passage of a free current of air. Under these conditions drying would not only proceed more rapidly, and the time during which infection could take place would thus be diminished, but the timber would not be wetted by rain, and the germination of spores would probably not go on readily on the dry surfaces. There is no

infection of stored timber may take place, it is necessary to remember that the presence of spores is essential for the development of the disease. These would undoubtedly be present in the forest area, but would probably be diminished in number away from the vicinity of infected trees, and might even be altogether absent where building operations were taking place, e.g., in towns. In this connection, however, an observation made by Hubert† in a recent paper is of interest. This writer, describing his investigations into the length of time during which the mycelium can remain in a living condition in timber, states that he made cultures from fragments of blue-stained wood taken from a piece of structural timber which has been in a



PHOTOGRAPH SHOWING APPEARANCE OF BLUEING IN A RECENTLY FELLED TREE

information available as to the minimum amount of water which must be present for growth of the mycelium in the wood, but thoroughly seasoned timber does not usually become infected. Professor Horne* is of opinion that if the moisture-content of the timber is reduced by air drying under protection from the weather no appreciable "blueing" will occur, even if the timber is subsequently exposed to the weather for a short period during the construction of buildings.

In any consideration of the circumstances under which

* "Experiments on the Mechanical Properties of Scots Pine," Paper read before Section G of the British Association, Edinburgh, 1921.

factory building for seven years. The timber in this building was shipped green from the mill and put in place during rainy weather.

Since species of *Ceratostomella* can attack the living cells in freshly cut pieces of timber, the question arises as to whether, under certain circumstances, living trees may not be attacked and killed by the fungus. Münch suggests that the high percentage of water, and consequently the low oxygen-content of the tissues, will prevent penetration by the hyphae, and that normal trees therefore will not become infected. If, however, the oxygen present in the

† "Notes on Sap Stain Fungi," *Phytopath.*, xi., 5, pp. 214-224, 1921.

wood is increased by diminishing the water-content, there appears to be no reason why infection should not take place. In order to bring about this condition, some of the roots of a tree were chopped through and, in another specimen, the bark and sapwood were sawed through half-way round the stem at two levels, one about 18 inches above the other, so that the wood between the two cuts was completely isolated from its water-supply. Infections were made on the two specimens, and in the first some "blueing" resulted in the older sapwood, while in the second the whole of the wood between the cuts was infected.

A tree in which the roots have been loosened or broken by a storm will usually remain living for a considerable period, but may become infected at the base by *Ceratostomella* and die within a short time. In such a tree partial defoliation will result from the root damage, and the transpiration stream will be thereby lessened; this will gradually lead to a diminution of the moisture present in the sapwood and a consequent increased oxygen-content. Infection in such a case appears to be often brought about by bark-boring beetles, and when this happens the "blueing" fungus is enabled to spread rapidly in the sapwood owing to its increased air-content, and ultimately the tree dies. Death, in such a case, is brought about by a combination of factors, and it is extremely difficult to estimate the relative importance of any one of them. Von Schrenk, in the United States, has described cases in which the attack of bark-boring beetles was associated with the production of "blued" timber. In trees of *Pinus ponderosa* severely attacked by the beetle *Dendroctonus ponderosae*, the blue coloration of the wood seemed to spread from the beetle holes, and it is suggested that the latter form channels for the passage of the hyphae into the deeper layers of the sapwood. In this country, Dr. Macallum, in the paper already referred to, has noted somewhat similar cases. In these the sapwood of dead but still standing trees of *Pinus sylvestris* was found to be badly attacked by *Ceratostomella pini* and *C. piceae*, and in all observed cases the bark of the trees was riddled by holes made by the pine beetle *Hylesinus piniperda*.

Münch has suggested that partial defoliation by caterpillars may bring about a predisposing condition for attack by *Ceratostomella*. Such defoliation will diminish the food supply of the roots and lessen their activity in water absorption, and ultimately lead to increased aeration of the wood as already explained, whereby penetration by the hyphae is rendered possible.

The changes brought about in timber by *Ceratostomella* can hardly be described as decay, since for the most part the cell contents are attacked and not the cell walls. Although no experimental results are available, it seems probable that the "blued" is more liable to decay than the healthy timber. Münch, however, suggests that the "blued" timber will be less open to attack by wood-destroying fungi, since the greater part of the food material stored in the cells has already been removed by the *Ceratostomella*.

A considerable amount of work has been carried out to determine the effect of the "blueing" upon the mechanical properties of the timber. Rudcloff* concluded that the

* "Untersuchungen über den Einfluss des Blauwerdens auf die Festigkeit von Kiefernholz," *Mittl. aus. d. Kgl. techn. Versuchsanst.*, 1897.

infected timber had a slightly greater compressive strength than sound material, but as the water-content of the test pieces was not determined the results are not reliable. Von Schrenk, who also made a number of tests in the United States, found that the "blued" timber was slightly stronger both when compressed endwise and when broken crosswise. But as the "blue" was slightly drier than the sound wood, this investigator concluded that for all practical purposes "blue" wood is as strong as the healthy timber.

Münch has carried out a large number of tests on Scots pine timber at Munich, using for comparison perfectly dry samples taken from closely adjoining positions in the trunk of the tree, infecting some pieces with cultures of *Ceratostomella pini* and allowing the fungus to grow for six months. The importance of determining the exact positions from which samples are obtained will be appreciated, when it is remembered that the density and resistance to pressure of the wood increase regularly in passing from above downwards in the trunk of the tree. Before testing, all the samples were thoroughly dried in an oven kept just below the temperature of boiling water. Münch found that the infected wood became slightly lighter in weight and weaker with regard to compression, but he attributed these effects to the presence of other wood-destroying fungi in the samples used for testing, and concludes that neither the specific gravity nor the resistance to compression is altered by infection with *Ceratostomella*. Weiss and Barnum,* in the United States, have tested "blued" and normal pieces of the timber of *Pinus palustris*, and find that for all practical purposes the infected wood is as strong as the healthy samples. But heavily stained timber of *Pinus echinata*, having the same water-content as the normal, was found to be slightly weaker and showed less surface hardness than the unstained.

The experiments of Professor Hudson Beare were carried out on timber of the Scots pine obtained from Deeside, Strathdon, and Inverness. The infected pieces were included amongst a number of healthy samples, which were being tested to determine their fitness for aeroplane construction. Only cross-breaking tests were carried out on the infected wood, the size of the specimens used being approximately 2 inches by 1 inch, and the length 4 feet. The specimens were air-dried under cover for some time before testing, and the moisture-content at the time of the test was determined by drying six sections from each specimen in an oven kept at a temperature of 212 F. For purposes of comparison the standard moisture-content of 15 per cent., as proposed by Bauschinger,† was adopted, and the results were reduced to the standard by the formula given by this investigator.

Professor Hudson Beare states his conclusions as follows:—

"Taking first of all the eight specimens from Deeside and Strathdon, the conclusion I formed was that the presence of the fungus had a distinct tendency to lower the limit of elasticity of the material, and also to reduce the modulus of elasticity. The four Deeside specimens had an average limit of elasticity of 2,834 lb. per square inch, and

* Quoted by Hubert, i.e.

† See W. C. Unwin, "Testing of Materials of Construction," 3rd ed. 1910, p. 402.

SIR FRANCIS NEWBOLT'S SPEECH

an average modulus of about 1,250,000. The four specimens from Strathdon had a limit of elasticity of 3,042 lb. per square inch, and a modulus of elasticity of 1,051,000.

"Now, really good Scots pine should have an elastic limit—and this was obtained in other material free from the fungus—of from 4,000 to 6,000 lb. per square inch, and a modulus of elasticity of anything from 1,500,000 to nearly 2,000,000 per square inch. The "blueing" does not seem to have any serious effect on the ultimate strength of the wood, but, of course, for practical uses where stress and strain are set up, the elasticity limit and modulus of elasticity are very vital factors.

"The other lot, viz., the specimens from Inverness, all had an exceedingly low limit of elasticity and an extraordinarily low modulus of elasticity, and I am inclined to think that the bad results obtained in these specimens were due to the fact of this fungus attack."

In considering the results obtained by Professor Hudson Beare, it may be pointed out that the "blued" specimens used had been infected naturally in the open, and that probably more than one species of *Ceratostomella* was present, as well as other sap-staining fungi such as species of *Cladosporium* and *Penicillium*.

Although in the case of the compression tests made by Münch, specimens of "blued" and healthy timber that were truly comparable were obtained, it must be remembered that the former had been produced by artificial infection with one species of *Ceratostomella* only, and that, before testing, all the specimens were completely dried—a condition never found in nature. No such exact comparisons can be made in the case of the results obtained by Professor Hudson Beare, yet the conclusions arrived at probably give a more accurate indication of the effect of "blueing" on the strength of timber, for the results upon which these are based were obtained from naturally infected timber in the condition in which it comes into the market.

Hubert points out that a few cases have been noted where "blue" wood steamed and bent for use in the manufacture of furniture has failed under the bending process. In such a case it is of importance to determine whether the failure is really due to the *Ceratostomella* or to any wood-destroying fungi which may accompany it.

From the consideration of the above results it may be concluded that "blued" is slightly weaker than healthy timber, and it should therefore not be used for structural purposes where failure would result in serious consequences.

MR. E. H. NEW'S PRINTS.

In reply to inquiries which have been received, Mr. New is the publisher of his own prints; but copies can also be obtained from Messrs. Batsford and the Fine Art Society, 148, New Bond Street, W.

THE JOINT ARCHÆOLOGICAL COMMITTEE.

Mr. E. P. Warren, F.S.A., has been appointed as representative of the Royal Institute on the Joint Archæological Committee.

The Inaugural Meeting

SIR FRANCIS NEWBOLT'S SPEECH.

The speech in which Sir Francis Newbolt, K.C., seconded the vote of thanks to the President for his opening address at the first meeting of the session was unavoidably omitted in the report of the proceedings owing to lack of space. Sir Francis said: Mr. President, my Lord, ladies and gentlemen, I should be deceiving you if I said that when I was invited to second this proposal I was disinclined to do so. On the contrary, I prepared a speech which I thought might possibly meet with your approval. In the few minutes which I feel bound, in honour, to take up, I feel that, although I am expressing your wishes in seconding this vote of thanks, I cannot do it in your way. There are many reasons for this. The first is, I am not you, and I must take a line entirely my own and say what I want to say, but not run the risk which every barrister does who does that—that of losing the case and being cursed by the client, because to-night I know that, whatever I say, I can't lose.

The first thing that occurs to us, of course, is, where did I hear that voice before? I sit here and I hear these sentences and suggestions, sweetened with the honey of Hymettus, and I wonder: Where did I first hear them? And I look far beyond this room to what, in a well-known quotation, is called "A land of waters green, and clear, of willows and of poplars tall"—it is too familiar to continue. But it was on that river that we first met. I may say, with all modesty, that what I am in the rowing world I owe to Mr. Waterhouse. There is only one poet who is read by rowing men, Henley, of course, and in his delightful language I may say of our President, He was a king in Balliol when I was a Christian slave. Our friendship, if one may call it so, lasted for three days. I shall never forget the gentleness and vivacity, and the sympathy and the humour, with which he spoke to me when we parted. He said, "You can't row. In all human probability you never will be able to row; you had better go and drown yourself in the Upper River." I very nearly did, but I was saved by an accident. I found, when I was in the water, that it was so shallow I could crawl flat to the bank; I did, in fact, crawl ashore on all fours, and felt very uncomfortable.

With feeling of a kind of dead revenge, I turn to the presidential address he has just given us. Of course, in seconding the vote of thanks, I cannot compete with the delicacy, the generosity, the gracefulness with which he paid that well-deserved tribute to Mr. Simpson; that does not come into my province at all, it is rather with the more controversial matters I wish to deal.

We start with the carpet: "the devil-possessed carpet." It did not seem to me to be like that at all; it seems to me our President has invited us to come on to that magic carpet, which I think is almost the first prophecy of the aeroplane. And we were to go to Paris and look at the untidy book-stalls, and to Edinburgh, where Londoners visit the sights before dawn. And then, being on the magic carpet, we should go to Baghdad and Bussorah, and, I think, probably to India. I say that, because we all know that Agra is the Mecca of architects: Agra is the great City

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

in the Northern Provinces which was fortified and built by a man of whom you have heard, but of whom you know nothing, Akbar. Even that was not his name, for it simply means The Great.

Outside that city is one of the most beautiful, if not the most beautiful piece of architecture in the world, the Taj Mahal. Perhaps you have seen pictures of it. It was built for a very cunning man, the Emperor Shah Jahan, for his wife and himself, and it was so beautiful that when it was finished—I don't know whether there had been any trouble about the little matter of commission—he said the architect was no longer necessary, and might some day build a better mausoleum, and simultaneously with the opening, the architect was laid aside entirely—I speak metaphorically. When I say the Mecca of architects, I don't know whether they teach it as a good example in this Institution, but it is a fact that the architect who was engaged in that matter was employing 20,000 men continuously for 22 years—some job ! I hoped the President would say something more about Leith when he mentioned it, because it has a harbour, and in that harbour the architectural waters were deeply troubled by tramwires. What that means I do not know, I suppose it has some architectural signification. And he said the motto of the London County Council he would propose, if he had the courage, would be, "Keep off the Grass." I thought over that, but as I was coming in the 'bus I thought a better one would be "Safety First."

Then I am sorry to see the sneer at Ruskin. I was up in arms about that, because in our time at Oxford I was almost the only pupil of Ruskin who could be induced to attend the Slade. I do not think Mr. Waterhouse knew who he was, at any rate he had not read him well enough to know that, as regards liberty and the bookstalls and the trees and the river that he claims for London, Ruskin spoke of "That treacherous phantom which men call liberty," and if you study city life and city architecture, you will find it is a dangerous phantom when pressed to its utmost limits. I do not think the President mentioned Piranesi, though the name appears in his original draft, which is an unfortunate thing, though perhaps he was wise, because Piranesi made not only a fortune but an immortal name by not being an architect. He tried, and I think he began to build a church, then he gave up and produced 1,500 enormous etched plates, which were quite enough to maintain his reputation for some centuries.

My time is nearly at an end, and I should like to say I know nothing about architecture, unfortunately ; but I know something about architects. And I have observed an extraordinary phenomenon, which might be a subject of enquiry in the Institute ; and that is the effect upon the conscience, and also upon the mind, of an architect of taking the Oath. I have rather a large acquaintance with architects ; they come into my Court and stand, one by one, quite close to the Bench. First of all there will be a distinguished member of some kindred society who comes forward and says certain buildings cost so much, and certain alterations were necessary and were carried out, with all the glibness of his craft, and as he comes in first he says that the defendant refuses to pay and must be made to pay. I am quite convinced, indeed I think my predecessor used to write down in his book, "I find for this man." But I have learned in a hard school that I had better hear the other

man as well. And when he comes up he is even more respectable and experienced, and rather more friendly with me. And he takes the Oath, and his efforts to explain to me, without any overt act, that the previous man is qualifying for Bedlam, and is totally ignorant of the first four rules of the game, are most pathetic. And when I have to decide between them, there is only one way of doing it, and that is, by tossing a coin. Sometimes I find it useful to take them with me to see the building : no evidence on oath, none of that excitement or doping. And when I take them to the building and confront one with the other, they are perfectly harmless. I go on to a roof with them, and I say, "These chimneys, what do you say about this ? They are out of plumb, anybody can see that." "Do you agree they are out of plumb ?" I say to the other. "Of course they are." Under oath, he would have said, "If those chimneys are out of plumb I will eat the dome of St. Paul's." What the explanation is, I entirely fail to grasp.

How to Look at Architecture

A series of free public lectures on Architecture has been given at the Manchester University with a view to interesting the ordinary man and woman in the subject. For the past two years the lectures have been organised by the Manchester Society of Architects and the Institute of Builders, but this year the Manchester Royal Institution has joined with the architects and builders. The first of this session's lectures was provided by the Royal Institution on Wednesday, 6 December, the lecturer being Professor C. H. Reilly, of Liverpool. Mr. T. D. Barlow was in the chair.

The title of Professor Reilly's lecture was "How to Look at Architecture," the subject being illustrated by lantern slides depicting most of the famous buildings of the world, both ancient and modern.

Architecture, he said, was the one art which could turn this material civilisation of ours into something spiritual and beautiful. The change could be brought about very simply by an alteration of dimensions, which did not involve the expenditure of great sums of money. A good building was often differentiated from a bad building by a few inches or a few feet. The Greeks understood this best. They realised that in proportion lay the secret of interpreting the soul. A slight alteration in the length, breadth or height might make a building which would appeal to the imagination of all the ages.

Anything that could be done to increase the popular appeal of architecture was tremendously worth while, and he congratulated Manchester on the attempts which were now being made in the city to bring back architecture to the public, or rather to bring the public back to architecture. All the great ages of art had been supported by great popular sentiment. It was so in the fifth century in Greece, when architecture was chosen as the symbol of all the great aspirations of the Greek race, and great buildings were built as memorials of a war that had saved civilisation. There was a popular critical opinion behind, and acting as a check upon, the exuberance of design during the Renaissance in Italy. In our own Georgian period we had a very rigid taste. It belonged to one class of society

ALLIED SOCIETIES

rather than to all. No one could call himself a gentleman in the days of Horace Walpole who could not express an opinion upon the proportions of the buildings which were then being erected. This opinion existed to-day in countries where great buildings are being built. In America, which is sometimes regarded as a crude place, where crude ideas flourish, architecture, as the sign of a great civilisation, is the art that prospers most.

As indicating the want of popular interest in architecture in England, Mr. Reilly expressed a doubt whether any average citizen could mention the name of a single great architect working in England to-day. "And yet," he remarked, "we have had the streets of Liverpool blocked by people anxious to see a beautiful girl. I am not quarrelling with that. The Greeks would have done it. What I should like to see would be the same enthusiasm and excitement shown when the scaffolding is removed from a beautiful new building."

It was a terrible thing to think what would happen to Macaulay's New Zealander on visiting Manchester or Liverpool, Mr. Reilly proceeded. Amid the grimy ruins it would take him some time to find half a dozen good buildings. After many hours of continuous archaeological research, he would find few that were not mean or vulgar. Much money was being spent on buildings, but the more the money the greater seemed the danger of their becoming monuments of vulgarity.

How should they look at architecture? It should be looked at like the product of any other art. They should allow it to move them like a picture. A great building had this curious faculty, that it made an immediate appeal to the imagination. It should cause the heart to leap and a lump to rise in the throat just as any other authentic work of art did. Architecture was not a remote art demanding great knowledge for its appreciation. It was a homely art answering practical needs. It reflected the thoughts of the times, and regard for our honour with posterity alone should prompt us to build beautifully.

The Manchester Society of Architects and the Manchester branch of the Institute of Builders have both been collecting funds to help in founding a chair of architecture at the University. Hitherto funds for the school have been provided by the University jointly with the Corporation of the City, but this arrangement has come to an end and the whole of the Architectural School is now under the sole control of the University.

Both architects and builders have felt it was not enough to teach architects, but that the general public must be enlightened as well; and they have found the lecturers for this purpose the University permitting the use of the lecture theatres. It is very satisfactory to all those interested in the effort that very good audiences have responded.

Allied Societies

OXFORDSHIRE SOCIETY OF ARCHITECTS. THE GREEK POINT OF VIEW.

Mr. Ronald P. Jones, M.A. [F.], gave the second of the series of lectures arranged by the Oxfordshire Society of Architects at the Ashmolean Museum on Friday,

17 November. His subject was "The Greek Point of View." Professor Percy Gardner was in the chair. A précis of the lecture is as follows:—

Greek architecture comprises the most perfect that has ever been produced. There are two qualities which have to be considered in studying its development. Firstly, that its ornament is essential to its construction; secondly, sculpture is applied to the architectural forms and is complete and as distinct from them. There are not more than about a dozen Greek temples existing in anything but a fragmentary state. There is one word which fitly describes Greek work, and that is "lucidity." It is simple and direct, and obviously has a timbered prototype. The form and position of the Triglyphs are sufficient evidence, and indicate this beyond doubt. Greek temples always exist in a brilliant atmosphere. The matter of lighting, although a subject for a great deal of conjecture, is one which was probably considered of small importance by the Greeks. The lighting of their temples lessened as one approached the inner sanctuary.

The method of building was from the outside inwards. This was entirely reversed in later ages. The basis of their design was the column with its entablature. Size made no difference, for smaller proportions were used in all buildings, whatever their actual dimensions. There was a purpose in the flutes to the columns. The strong sunlight on plain columns gave a very definite line between the light and shady portions of the column, and this might have been thought to have detracted from the æsthetic value. Now the flutes transferred a quantity of light to the shadow and a quantity of shade to the light surfaces. The point was clearly illustrated by lantern slides. Greek architecture was trabeated. There were no arches giving thrusts, and it was, in fact, exemplary of the policy of our present Government in its "tranquillity, quietness and sedateness." That being so, there was no need for cementing material, and the various stones and features were built one upon the other with dry joints. After the burning of Athens by the Persians it fell to the lot of Pericles to produce the great works which formed so important a standard in the chronology of architecture. Photographs of the Acropolis with its Parthenon, Erechtheum, Propylaea, Temple of Nikeapteros, etc., were shown, from which it was clear that the exterior of a Greek building does not express the arrangement of its interior. Carefully taken photographs showed the slope of the columns, the horizontal curvature, etc., as examples of mathematical refinement.

In thanking the lecturer, Professor Gardner informed the audience that the building in which they were was designed by Cockerell on the model of architecture shown in these Grecian temples, excepting the fact that the back portions had been neglected architecturally. The secretary of the Society, Mr. Thomas Rayson, proposed votes of thanks to the chairman and the lecturer.

THE UNIVERSITY OF SHEFFIELD.

The Council at its meeting on 8 December appointed Mr. Charles D. Carus-Wilson, M.C., A.R.I.B.A., to the post of Lecturer in Architecture.

The Sir Christopher Wren Bi-Centenary Committee

THE FOLLOWING REPRESENTATIVES HAVE BEEN APPOINTED BY THE VARIOUS BODIES TO SERVE ON THE GRAND COMMITTEE:—

NAME.	REPRESENTING	NAME.	REPRESENTING
Canon S. A. Alexander, M.A.	The Dean and Chapter of St. Paul's Cathedral.	Sir Cecil Harcourt Smith, C.V.O., Director, Victoria and Albert Museum.	The British Institute of Industrial Art.
Mr. Edgar Armitage ..	The Junior Art Workers' Guild.	Mr. J. C. Squire ..	The Architecture Club.
The Rt. Hon. Lord Askwith, K.C.B., K.C., D.C.L.	The Royal Society of Arts.	Mr. Lawrence E. Tanner ..	Westminster School.
Mr. Frederick Cavendish Bentinck	The Trustees of the British Museum.	Mr. Andrew T. Taylor, J.P., F.S.A.	The London County Council.
Major-General Wilkinson Dent Bird, C.B., C.M.G., D.S.O.	The Royal Hospital, Chelsea.	Mr. Carmichael Thomas ..	The London Society.
Mr. F. G. Dawtrey Drewitt, M.D., F.R.C.P.	The Royal College of Physicians.	Dr. H. H. Turner, Savilian Professor of Astronomy, University of Oxford.	The Royal Astronomical Society.
Sir Lionel Earle, K.C.B., K.C.V.O., C.M.G., J.P.	H.M. Office of Works.	Mr. Lawrence A. Turner ..	The Art Workers' Guild.
Sir Banister Fletcher, F.S.I.	The Carpenters' Company.	Mr. F. J. Walton ..	The London Master Builders' and Allied Industries Association.
Mr. H. Denston Funnell ..	The Architects' and Surveyors' Assistants' Professional Union.	Mr. Edward P. Warren, F.S.A.	The Civic Arts Association.
Mr. John Good, D.L., J.P., F.I.O.B.	The National Federation of Building Trade Employers of Gt. Britain and Ireland.	Sir Aston Webb, K.C.V.O., C.B., P.R.A.	The Royal Academy of Arts.
Mr. Arthur Gray, M.A., Master of Jesus College	The University of Cambridge.	Mr. S. M. Young, F.S.I. ..	The Worshipful Company of Masons.
Mr. Josiah Gunton (Chief Commoner)	The Corporation of London.	The following have also consented to serve on the Grand Committee:—	
Sir William Hale-White, K.C.B., M.D.	The Royal Society of Medicine.	The Rt. Hon. the Earl of Crawford and Balcarres, K.T., P.C., LL.D., F.S.A.; The Rt. Hon. Viscount Esher, G.C.B., G.C.V.O.; The Rt. Hon. Lord Leverhulme; The Rt. Hon. Viscount Milner, K.G., G.C.B.; The Rt. Hon. the Earl of Plymouth, P.C., G.B.E.; Professor Arthur R. Hinks, O.B.E., M.A., F.R.S.; Mr. Ernest Law, C.B.: The Rt. Hon. the Earl Curzon of Kedleston; The Rt Hon John Burns	
Mr. Stanley Hamp ..	The Architectural Association.	REPRESENTATIVES OF ALLIED SOCIETIES.	
Professor Selwyn Image ..	The Church Crafts League.	NAME.	REPRESENTING
Sir Thomas Graham Jackson, R.A.	Wadham College, Oxford.	Mr. H. S. Rogers, M.A. ..	The Berks, Bucks and Oxon A.A.
Mr. H. V. Lanchester ..	The Town Planning Institute.	Mr. Rupert Savage ..	The Birmingham A.A.
Professor W. R. Lethaby ..	The Society for the Protection of Ancient Buildings.	Mr. G. P. Sheridan ..	The Royal Institute of the Architects of Ireland.
Mr. J. Mewburn Levien ..	The Royal Philharmonic Society.	Mr. T. Butler Wilson ..	The Leeds and W. Yorks Architectural Society.
Dr. Ellis H. Minns ..	Pembroke College, Cambridge.	Mr. Gilbert W. Fraser, M.C.	The Liverpool Architectural Society.
Mr. John Murrey ..	The National Federation of Building Trades Operatives (London District Council).	Mr. G. J. Skipper ..	The Norfolk and Norwich A.A.
Mr. E. J. Partridge, F.S.I.	The Society of Architects.	Mr. T. R. Milburn ..	The Northern A.A.
Dr. F. W. Pember, Warden, All Souls' College.	The University of Oxford.	Mr. A. Eaton ..	The Nottingham and Derby Architectural Society.
Mr. J. Wells, Warden, Wadham College	The University of Oxford.	Mr. T. P. Marwick ..	The Incorporation of Architects in Scotland.
Sir Hercules Read ..	The Society of Antiquaries.	Mr. James Lochhead ..	The Glasgow Institute of Architects
Major Richard Rigg, O.B.E., T.D., J.P.	The London and Middlesex Archaeological Society.	Mr. C. B. Flockton ..	The Sheffield, South Yorks and District Society of Architects and Surveyors.
Mr. W. E. Riley, R.B.A. ..	The Official Architects' Association.	Mr. Percy Thomas, O.B.E.	The South Wales Institute of Architects.
Mr. L. H. Savile, M.Inst.C.E., A.I.N.A.	The Admiralty.	THE EXECUTIVE COMMITTEE.—Mr. Paul Waterhouse, M.A., F.S.A.; Mr. Arthur Keen; Mr. Walter Cave; Mr. H. M. Fletcher, M.A.; Mr. F. R. Ilions; Mr. S. C. Ramsey; Mr. Arthur Stratton, F.S.A.; Mr. Walter Tapper; Mr. W. Henry Ward, M.A., F.S.A.; Mr. Maurice E. Webb, M.A., D.S.O., M.C.; Sir Banister Fletcher; Mr. Mervyn Macartney, B.A., F.S.A.; Mr. Walter H. Godfrey.	
Professor Sir Arthur Schuster, Ph.D., LL.D., D.Sc., Sc.D., F.R.S.	The University of London.		

OBITUARY

Obituary

ARTHUR H. REID [F.]

To the obituary notice of the career of the late Mr. Arthur Reid, which appeared in the JOURNAL of 11 November, a footnote may properly be added. The facts mentioned in the last few lines cover a greater fact which is of supreme importance to us as an Institute. It is to the personality and the loyalty of such men as Arthur Reid that we owe the strength of our overseas unity. His vivid sense of the brotherhood of our profession throughout the Empire and of the family tie which unites our far-away Allied Societies to the Mother body was powerful enough not merely to make itself felt and respected in that distant region, but to insure its continuance. I am personally privileged to know how real is the attachment of our South African brethren to our central organisation and to be aware of its vitality.

We, on our part, should never forget how much we owe to those who in far-off lands help to make our Institute's *rôle*, what in truth it is, a reflection on a small scale of the Great British Empire itself.

PAUL WATERHOUSE.

In the year 1906 Mr. Reid was appointed Overseas Hon. Secretary for the R.I.B.A. for South Africa, and he held this office until his death. His services to the Royal Institute and to the profession in this capacity were of the utmost value, and were ungrudgingly rendered. He was keenly interested in architectural education and the statutory registration of architects, and his work for these causes will long be remembered in South Africa.

PHILIP HENRY TREE [F.]

The name of Philip Tree will always be associated with St. Leonards, where he was in practice for forty years. Perhaps his most successful work was in the development of the Highlands Estate, where many interesting houses were erected from his designs, notably the large block known as "Highlands Court."

Mr. Tree was considerably influenced by the work of Sir Ernest George, whom he always considered to be the greatest architect of his time for domestic work. It is a coincidence that he died within a day or two of his great contemporary.

I was articled to Mr. Tree in 1897, and spent four very happy years in his office. He was the kindest hearted man, generous to a fault, and possessed of the great gift of friendship with all those who were associated with him. I recall many delightful excursions we made together to see old work, when he would make charming sketches, not only of buildings, but of every-

thing and anything in which a picture was to be found. He might have made a great name as an illustrator with his amazing powers as a draughtsman and his wide human interests as a man. His place in the affections of those who knew him will never be forgotten.

H. AUSTEN HALL [F.].

Notices

THE FIFTH GENERAL MEETING.

The Fifth General Meeting (Business) of the Session 1922-23 will be held on Monday, 8 January 1923, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on 18 December 1922; formally to admit members attending for the first time since their election; to proceed with the election of the following candidates for membership whose names were published in the JOURNAL for 25 November (page 63), and who have been found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws and recommended by them for election :—

AS FELLOWS (5).

EPPS : WALTER MANTED [A. 1908], 616-617 Bank Chambers, 329 High Holborn, W.C.; The Bungalow, Kidbrooke Gardens, Blackheath, S.E. Proposed by Percy B. Tubbs, Raymond Unwin, W. R. Davidge.

FOURACRE : JOHN LEIGHTON [A. 1905], Lloyds Bank Chambers, Bank Street, Plymouth; 16 Portland Square, Plymouth. Proposed by H. Lionel Thornely, Paul Waterhouse, B. Priestley Shires.

SOLOMON : DIGBY LEWIS, B.Sc.Lond. [A. 1907], 133 Moorgate, E.C.2; 14 Harley Road, N.W.3. Proposed by Lewis Solomon, Paul Waterhouse, H. D. Searles-Wood.

THOMPSON : CHARLES WILLIAM WARD [A. 1911], Bank Chambers, High Street, Rochester; "Rozel," Borstal Road, Rochester. Proposed by J. Gordon Allen and the Council.

WALKER : THOMAS [A. 1913], County Offices, Trowbridge, Wilts; Bath Road, Devizes, Wilts. Proposed by George H. Widdows, James P. Alison, Percy H. Currey.

AS ASSOCIATES (4).

DEVEREUX : WALTER ALAN [Passed 5 years' course at Architectural Association, London—Exempted from Final Examination after passing Examination in Professional Practice], c/o Architectural Association, 34 Bedford Square, W.C. Proposed by Robert Atkinson, Stanley Hamp, E. Stanley Hall.

DUNN : ALICK STEAD [Special War Examination], Municipal Architect, Bombay Municipality, Boki Bunder, Bombay, India. Proposed by Alfred J. Dunn, W. H. Bidlake, C. E. Bateman.

MOODIE : IAN ALEXANDER [Passed 6 years' course at Robert Gordon's Technical College, Aberdeen—Exempted from Final Examination after passing Examination in Professional Practice], 137 Clifton Road, Aberdeen. Proposed by J. A. O. Allan, George Watt, John W. Walker.

SCOTLAND : GEORGE BRUCE [Passed 5 years' course at Glasgow School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Mossgiel, Airdrie. Proposed by Professor Charles Gourlay, James Lochhead, J. Maurice Arthur.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

ARCHITECTS' FEES FOR STATE-AIDED HOUSING SCHEMES.

The Ministry of Health and the tribunal appointed by the R.I.B.A. are anxious to obtain a settlement of all claims for architects' fees in connection with State-aided housing schemes without further delay. Architects who still desire the assistance of the tribunal are therefore requested to apply to the Secretary of the R.I.B.A. on or before 31 December 1922. The Tribunal cannot undertake to deal with cases submitted to them after this date.

THE UNIVERSITY OF LONDON.

Mr. Paul Waterhouse and Mr. Arthur Keen have been nominated for reappointment as representatives of the Royal Institute on the Architectural Education Committee of the University of London.

RETIRED FELLOWSHIP.

Messrs. Harry Sirr, W. M. Dowdall and C. H. Brodie have been transferred to the class of Retired Fellows.

Members' Column

APPOINTMENTS WANTED.

ASSOCIATE wishes to assist Architects in preparation of drawings, tracings, or perspectives, etc., either in his own office or otherwise by arrangement—J. F. Hampton, Commercial Road, Paddock Wood.

LICENTIATE (just sat for examination qualifying for Associate) desires architectural post, in or near London preferred. Good general experience. Own small practice pre-war, nine years. Good constructionist, etc. Accept what offers to commence—temporary or otherwise. Full war service—Apply Box 923, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

SENIOR ASSISTANT desires permanent employment. Over 30 years' practical experience in architectural and surveying work of all kinds. Neat and accurate draughtsman, competent surveyor, use of level and theodolite, quantity surveying, specifications, etc. Salary by arrangement. Apply W. Crawshaw, 118, Norfolk Road, Seven Kings.

PARTNERSHIP.

YOUNG, energetic partner wanted by Licentiate of 30 years' practice, London and country; principally domestic work. Office: Whitehall. Considerable work in prospect. £500 capital for developing lucrative building scheme. Apply Box 230, c/o Editor, JOURNAL OF THE R.I.B.A.

MR F. A. BREWERTON.

MR. F. A. BREWERTON, A.R.I.B.A., F.S.I., who has been practising since 1913 at 134, Deansgate, Manchester, has removed to 33, Princess Street (opposite Town Hall), Manchester.

SCOTLAND.

SCOTTISH Architect in practice in Edinburgh A.R.I.B.A., F.S.I., is prepared to collaborate with London Architects having commissions in any part of Scotland. Apply Hon. Secretary, Edinburgh A.R.I.B.A., 14, Hill Street, Edinburgh.

Minutes IV

SESSION 1922-1923.

SPECIAL GENERAL MEETING, 18 DECEMBER 1922
(PREMISES).

At a Special General Meeting held on Monday, 18 December 1922, at 7.55 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 28 Fellows (including 8 Members of the Council), 28 Associates (including 4 Members of the Council).

The Minutes of the Special General Meeting held on Monday, 4 December, having been taken as read, were confirmed and signed by the Chairman.

On the motion of the President, the following resolution was carried by a unanimous vote:

That the following Resolution passed at the Special General Meeting held on Monday, 4 December 1922,

"That the Council be authorised to create a mortgage or otherwise to charge all or any the leasehold and freehold property of the Institute as the Council shall think fit, to secure the sum of £20,000 and interest, and to execute such deeds and documents as may be required in connection therewith," is hereby confirmed.

FOURTH GENERAL MEETING (ORDINARY), 18 DECEMBER 1922.

At the Fourth General Meeting (Ordinary) of the Session, held on Monday, 18 December 1922, at 8 p.m., Mr. Paul Waterhouse, President, in the Chair. The attendance book was signed by 28 Fellows (including 8 Members of the Council), 28 Associates (including 4 Members of the Council), 2 Licentiates, and 1 Hon. Associate, and a large number of visitors. The Minutes of the Third Ordinary General Meeting held on 4 December 1922, having been taken as read, were confirmed and signed by the Chairman.

The Hon. Secretary announced the decease of Sir Ernest George, R.A., Royal Gold Medallist 1896, and President of this Institute from 1908 to 1910; Sir Ernest George was elected an Associate in 1861, a Fellow in 1881, and transferred to the list of Retired Fellows in 1921. Also of Mr. Philip Henry Tree, who was elected an Associate in 1882 and a Fellow in 1890; Mr. Spencer William Grant, elected an Associate in 1879; and Mr. John Herbert Nicholls, elected a Licentiate in 1911.

The President having alluded in appropriate terms to the loss that had been suffered by the Royal Institute, by the art of architecture, and by his friends, in the death of Sir Ernest George, it was RESOLVED that the regrets of the Royal Institute for the loss of these members be recorded in the Minutes.

The following Members attending for the first time since their election were formally admitted by the President: Messrs. J. Ellis, Conrad E. George, Herbert J. Hall, Frederick J. Sawyer and H. J. Stribling, Associates.

The Secretary read the names of the candidates* nominated for election on 8 January 1923.

MR. A. N. C. Shelley, M.A.Oxon, B.C.L., of H.M. Ministry of Health, having read a paper on "The Law of Building outside London," a discussion ensued, and on the motion of Mr. W. E. Hart, Town Clerk of Sheffield, seconded by Major Harry Barnes [F.I.], a vote of thanks was passed to Mr. Shelley by acclamation, and was briefly responded to.

The meeting closed at 10.10 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

* The names and addresses of the candidates, together with the names of their proposers, are published in the present issue under the heading "Notices."

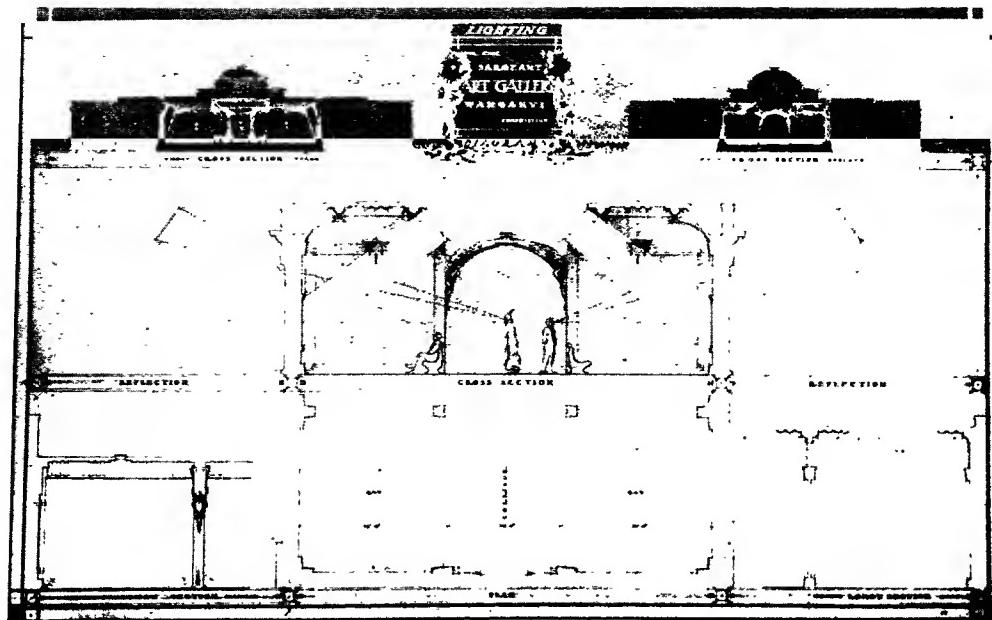


FIG. 1.—THE TOP-SIDE-LIGHTED METHOD AS CARRIED OUT IN THE SARGEANT ART GALLERY,
WANGANUI, NEW ZEALAND

The Lighting of Picture Galleries and Museums

By S. HURST SEAGER [F.]

IN the R.I.B.A. JOURNAL of 1912—Vol. XX, No. 2—was published my paper on the above subject. It dealt with the *principles* that should govern the design of picture galleries and museums, and in it were shown sketch-sections for buildings embodying the principles laid down. The principles were evolved from the laws of light enunciated, but no definite proof of their truth was given. That paper is issued by our Institute as a separate publication, and there is therefore no need for me to recapitulate now what was then stated. To it I can with confidence refer our members and those wishing to study this important subject. All the necessary laws and theories are there stated, and the proof can now be given that these principles must be followed if success is to be obtained.

Since its publication, two valuable contributions have been made and exhaustive tests have been carried out of the Top-Side-Lighted method I then advocated. Moreover, an art gallery has been built in New Zealand on this principle, the photographs of which, herewith shown, prove the efficiency of the system.*

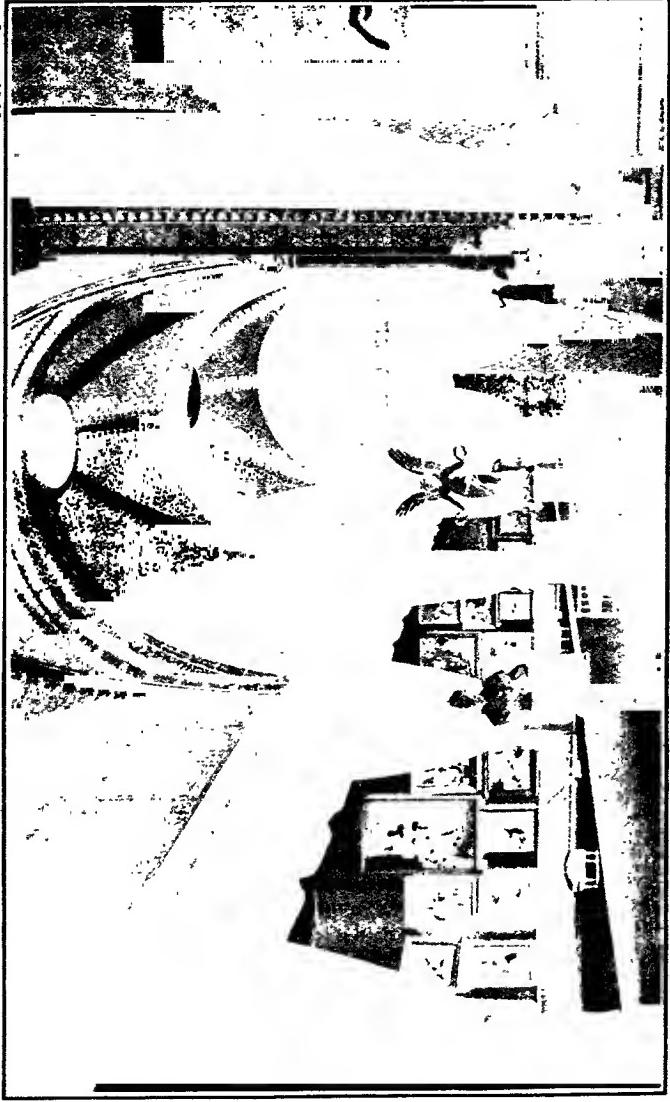
* In 1903 Dr. F. A. Bather published his very valuable presidential address which was delivered before the Museums Association. It contains many excellent expedients in lighting.

AMERICAN GALLERIES.

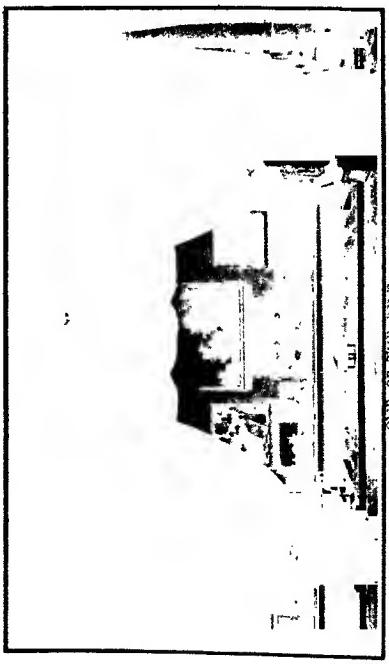
In 1913 the late Mr. C. C. Brewer published his able and exhaustive report on American Museum Buildings. Although he says he "will not attempt to enter upon those mathematical theories of lighting which have before been so fully discussed at our Institute and in our JOURNAL," he has made a valuable record of the conditions of lighting in American museums and galleries. His impressions, he states, "are most disappointing." Magnificent architectural works have been erected, large sums of money have been spent not only on the buildings themselves but also—at Boston—on preliminary investigations and on an experimental gallery which was erected in order that the problem of lighting might be fully studied. This being so, it is most surprising to hear that serious defects exist in the lighting of all American galleries. They have merely followed the traditions of the old world, and have in the majority of cases adopted the flat ceiling light, which often is nearly the full size of the ceiling, thereby increasing the defects which exist in all the European galleries I have studied.

The galleries, Mr. Brewer tells us, are all much over-lit, and the large windows and skylights have to be

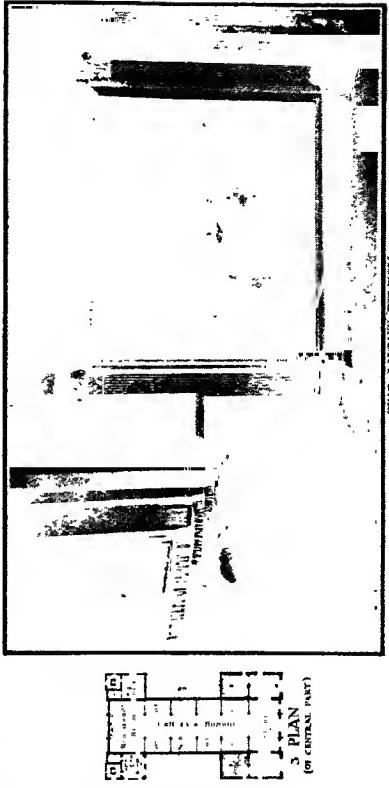
THE RYKS MUSEUM — AMSTERDAM. — ILL. NO. 1



1. SHOWING BAYS TOP LIGHTED. — FLOOR — THE GALLERY OF HONOUR. — MOST BRILLIANTLY ILLUMINATED IN BAYS.



2. IMPOSSIBLE TO EXHIBIT ANY — ONE OF THE RAMS — BUT UNGLAZED PICTURES.



4. IN SPERLICH BUILT ANNEXE — THE NIGHT WATCH. — SIDE LIGHTED & SCREENED.

ILL. NO. 1

THE LIGHTING OF PICTURES

continually screened with blinds if a restful effect is to be obtained. I share with Mr. Brewer the keen disappointment that in the Boston Museum, where "it is probable that more study and more care were given to it than to the building of any other museum in the world," the ideal of lighting has not been reached.

The investigations made by the Commission he referred to were embodied in a communication to the Trustees—"The Museum Commission in Europe." There is not a copy in England. Mr. Gilman very kindly promised to lend me his official copy, but found it had been "*sent to Japan.*"

In 1915 Mr. Benjamin Gilman (Secretary of the Museum of Fine Arts, Boston) published in the *Architectural Record* a study on the "Glare in Museum Galleries," which in 1918 he embodied in his interesting work, "Museum Ideals." Mr. Gilman made an exhaustive study of the glare in galleries resulting from the position of the source of light and proved by careful experiment—what so many have stated—that "attic light gives far less glare and is therefore far less annoying than "top light." By attic light is meant windows in the walls of a gallery close to the ceiling, above the range of vision of the spectator when looking at the pictures. Mr. Brewer agrees in this, for he says, in reference to the large attic-lighted hall in the New York Metropolitan Museum: "No doubt the great height and the area of white wall below are responsible for the beautiful soft diffused light which floods every part of it." Although it is true that an attic-lighted room is better than a top-lighted one for the exhibition of unglazed pictures, it must be condemned because, as I can show by photographs taken in such rooms, the reflections in glazed pictures of the spectators and objects in the room are seen as painfully as in the top-lighted room.

Mr. Gilman refers (page 200) to the two examples mentioned in my paper, the "New Pinacothek" at Munich and the Mappin Art Gallery at Sheffield, as being the only "two radical attempts to do justice to the Top-Lighting problem," and he states that "Mr. Seager has just proposed the method anew" under the name of the "Top-Side-Light method." The system I advocated has nothing in common with these two examples: both must be regarded only as steps in the right direction, but very faltering and feeble steps which do not carry us beyond the failures seen in all British and foreign galleries. They are still top-lighted rooms: the only difference between them and those seen in every art gallery is that the top light is placed *at the sides of the ceiling*, instead of being in the central part of the ceiling as in the old rooms of the National Gallery, in the Academy and hundreds of others, or forming the whole of the ceiling, as in some of the American and Continental galleries. I do not think Mr. Gilman can have seen these examples, or he would not have stated them to be "the

only really important contributions to the solution of the top-lighting problem."

BEST POSITION FOR PICTURES.

It must be remembered, and it cannot be too often insisted upon, that although unglazed oil and tempera paintings will not reflect the illuminated image of the spectators or objects, but *only the original sources of light*, it does not follow that their lighting is perfect. The true test of a space for hanging a picture in, is whether or not a glazed picture hung in that space will or will not give reflections. If it gives reflections of the primary source of light, *i.e.*, the window, sky or ceiling light, or—in the case of artificial illumination—the lamp, it is, of course, totally unfit for any picture. If it only reflects the secondary sources of light, *i.e.*, the illuminated spectators and objects, then it may be used for any unglazed exhibit without causing any annoyance: but it is only when a dark *glazed picture* is in such a position that it can be seen without any reflection whatever, that an oil painting placed there will be seen at its best.

For although no distinct reflected image is seen in an unglazed picture, on account of its diffusion by the uneven surface of the paint, there would be reflection of light from the secondary sources coming from the picture to the spectator which would prevent the subtleties of the painting from being fully realised and enjoyed. It is, perhaps, not possible to give a photographic proof of this, but the difference in effect upon the spectator when looking at a picture properly placed and lighted is immediately felt.

GALLERIES ERECTED PRIOR TO 1912.

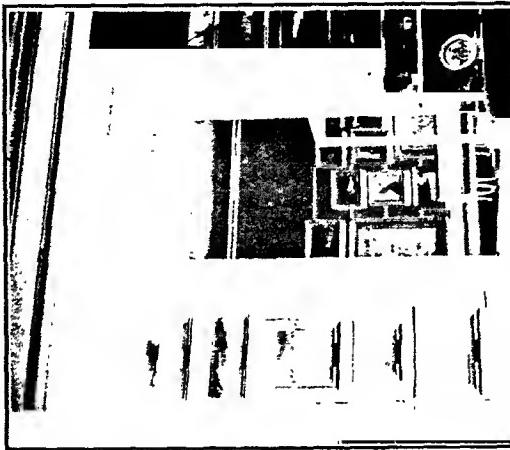
The endeavour in both cases, as in the Gallery of Honour in the Ryks Museum at Amsterdam (Ill. No. 1) from which the Mappin Art Gallery is avowedly copied, is to prevent reflections of spectators and objects, by keeping them in the shade, while the pictures are in a well-lighted space. The endeavour is a rightful one, but the great mistake in all these cases is that the sky-lights are high above the ceiling lights, causing the picture space to be only moderately well lighted, and quite incapable of overcoming the general gloom caused by the solid central part of the ceiling. This was so painfully felt at the Mappin Art Gallery (Ill. No. 2) that the central dome, at first made solid, was afterwards glazed, and this glazing, together with that of the lunettes at the north and south ends of the nave, has converted it from an ill-lighted and therefore comparatively useless space into one so well lighted that when the sun is shining through the south lunette this central space is by far the best lighted part of the gallery. The whole gallery is now an extremely pleasing one; but, as the illustrations show, the problem of lighting glazed pictures without causing reflections is no nearer solution here than in other top-lighted galleries.

MAPPIN ART GALLERY.—SHEFFIELD.

ILL. NO. 2.



1 LOOKING DOWN EAST WALL IN FIRST VISIT — ALL GLAZED PICTURES
FOR W. REFLECTIONS



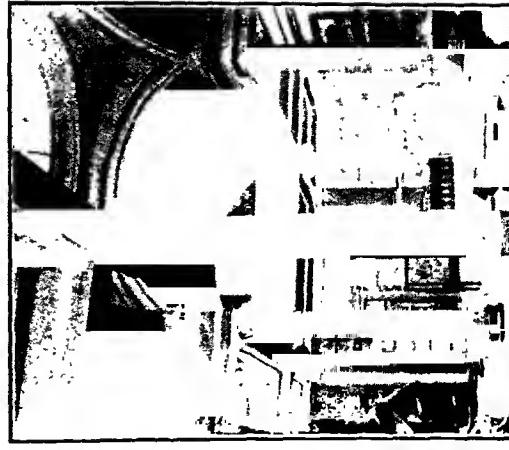
2 LOOKING FROM NORTH GLAZED CENTRAL HALL INTO SINGLE
GLAZED GALLERY — SHOWING STRONG CONTRAST IN LIGHTNESS



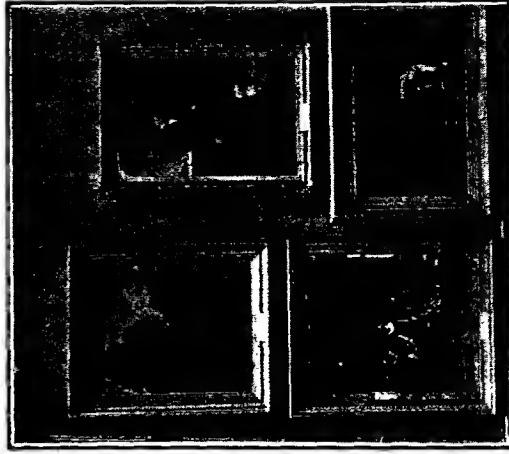
3 LOOKING ON TO WEST WALL — REFLECTIONS IN ALL GLAZED PICTURES
FOR W. REFLECTIONS



4 GLAZED PICTURES ON EAST WALL OF GLAZED ROOM — TAPE
NO. 12 C. C. C. THEREFORE THE FIRST LIMITED & SHADING NO.
REFLECTIONS



5 IN CENTRAL HALL — LOOKING SOUTH



6 LOOKING INTO DAY OR WEST SIDE — SHOWING PORTION OF
THE DUNOR PARLOR ORNITHATED BY REFLECTIONS OF HIS
GIFT.

ILL. NO. 2

THE LIGHTING OF PICTURES

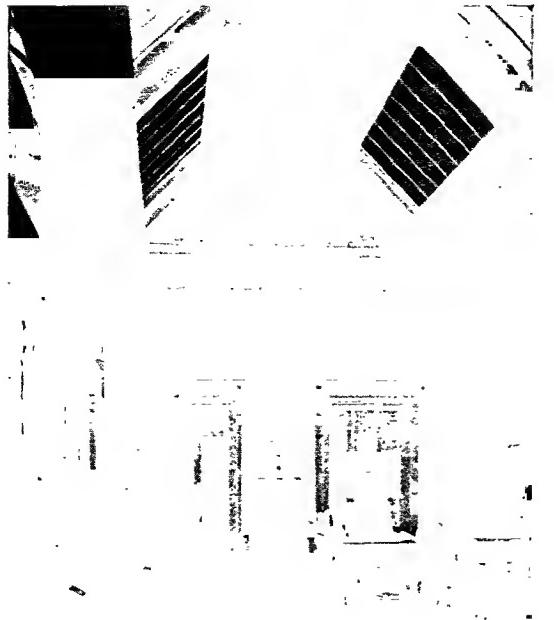


FIG. 2.—VIEW LOOKING NORTH IN NEWLY ROOFED ROOM IN THE WALLACE COLLECTION. TOP-LIGHTED

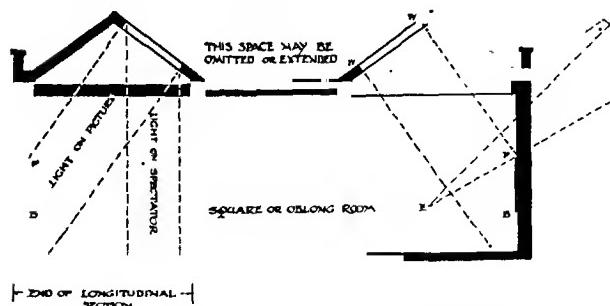


FIG. 3.—DIAGRAM REPRODUCED FROM R.I.B.A. JOURNAL, NOVEMBER 1912. TOP-SIDE-LIGHTED METHOD

That the solution cannot come by the attempt to give better light to the picture by placing the ceiling light close to the walls was pointed out as long ago as 1853 by the Messrs. Papworth in their book, which I have only just had the opportunity of reading. On page 70 they state, " Pictures have, as is well known, a tendency (*especially if dark, highly varnished or covered with glass*) to reflect the light objects near them.

" This mirror-like tendency will be found to be greater, wherever the windows may be placed, in proportion as the light on the picture is weak. It may be further remarked that the inconvenience in question is not to be counteracted by placing the sky-lights next the walls (an arrangement objectionable on other accounts), for

under such circumstances the light on any object near the pictures is necessarily fuller and brighter, whereas when the lights are nearer the centre of the roof such objects present their shadowed sides to the paintings, which have thus less to reflect." The truth of this statement is proved by the illustrations of the Mappin Art Gallery, the Ryks Museum, and in all those galleries having an open or partially open roof with the sky-lights on each side in the lower part of them.

ESSENTIAL DIFFERENCE BETWEEN TOP-SIDE-LIGHTED AND TOP-LIGHTED ROOMS.

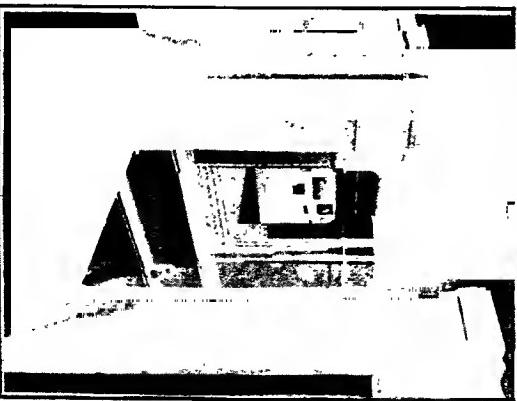
It is necessary that it should be realised that in advocating the Top-Side-Lighting method I am not " proposing anew " any of those systems above illustrated. The very fundamental, and absolutely essential difference between the Top-Side-Lighted method and other arrangements of sky-lights in open, or partially open roofs is that in the Top-Side-Lighted method the central solid ceiling either springs from—or, is level with—the lower edge of the sky-lights (see Fig. 3), while in the top-lighting systems the central ceiling, if there is one, either is level with or springs from the top edge (see Fig. 2). In order to carry out the Top-Side-Lighted method there must be a double pitched roof, and the sky-lights must be, not in the slopes of the roofs next the walls, but in the inner slopes of the roof next the ceiling.

This very essential difference was not recognised by Sir Martin Conway in referring to the new roof of the Wallace Collection. For at the annual meeting held at Winchester of the Museums Association, of which he was President, he said in the course of his remarks, " Mr. Seager not only merely described to us his points, but has illustrated and proved them. I am thankful to think that the Wallace Gallery, of which I am a Trustee, and which is going to have its roof put into order, is to have one or two of the principal galleries provided with side lights at the top : but whether Mr. Seager's researches have reached the architect, or whether it was an accidental arrival at the same result, I cannot say."

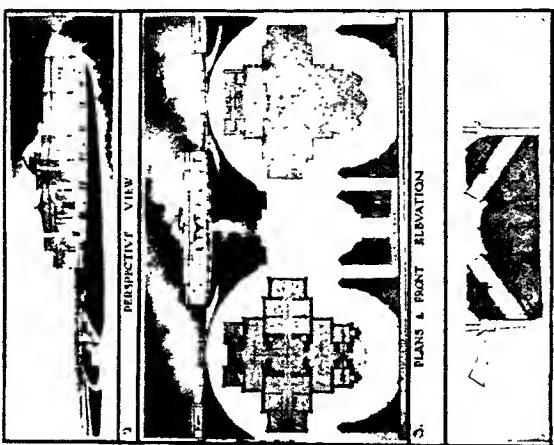
The illustrations show that the new roof of the Wallace Collection is the old top-light sky-light with the ceiling light omitted, illuminating the spectators and objects and causing, as usual, overpowering reflections in all glazed pictures. (See Figs. 15 and 16, page 141.)

It is very easy indeed to confuse the two methods, for the sky-light is placed exactly as I suggest in the Top-Side-Lighted method—if the section be regarded as that of a bay (Fig. 1), but by placing sky-lights on both sides of the room the advantage of the position is completely nullified. It is fortunate indeed that pictures on one wall of rooms double lighted in this way can be nearly perfectly seen by shutting off the sky-lights on one side, as explained under " Defects," page 131.

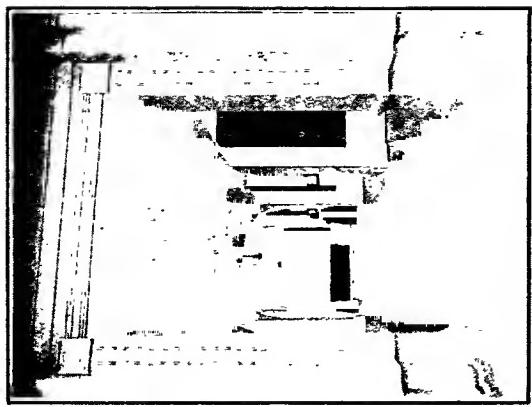
SARGANT ART GALLERY—WANGANUI—NEW ZEALAND..... ILL N. 3.



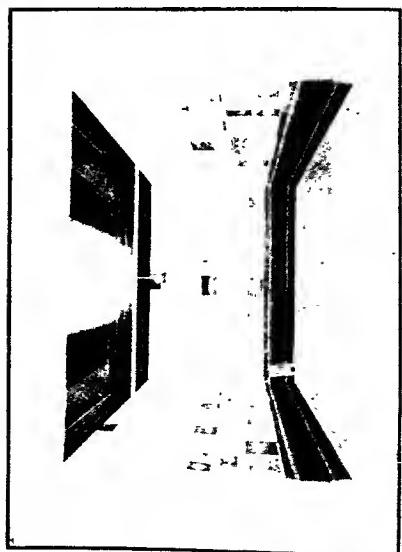
1. FROM GALLERY FOR SMALL PICTURES LOOKING ACROSS SCULPTURE HALL TODAY.



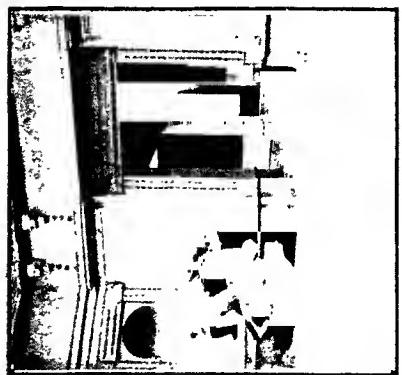
2. THE SCULPTURE HALL — LOOKING INTO CORRIDOR.



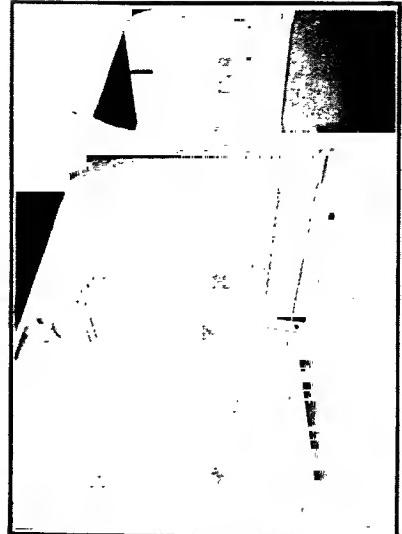
3. THE CORRIDOR & OPENINGS TO BAYS.



6. LIGHT SHED — GALLERY FOR SMALL PICTURES — BE SCULPTURE & PAINTS
8. CONCRETE TILED IN DARK COLOUR



7. THE SCULPTURE HALL — LOOKING INTO CORRIDOR



8. SCULPTURE HALL — THE BAYS 5.— WHITE DA DO & COVE.

ILL. NO. 3

THE LIGHTING OF PICTURES

SERGEANT ART GALLERY, WANGANUI, N.Z. (ILL. NO. 3.)

Although I cannot refer to any gallery in Europe or America built with the Top-Side-Lighted method constructed as I have suggested it should be, I can fortunately bring before my readers illustrations of the Sergeant Art Gallery, commenced in 1914 and completed in 1917, at Wanganui, New Zealand, in which this system has been adopted, and which, while not carried out entirely as I wished, does show the great value of the system for all picture gallery and museum purposes. My own share in the work was as Assessor, and as such I made it a condition that the lighting was to be in accord with the principles laid down in my paper published in our JOURNAL, November, 1912, a copy of which was made available for the use of each competitor. An illustrated report of this competition can be seen in the R.I.B.A. Library, and in it can be seen the three other premiated designs. The reason why all these plans are similar in design is because the conditions of competition also demanded the bay and corridor system leading off a central sculpture hall, rooms for small pictures, a small miniature room, etc.

The gallery was erected under a handsome bequest by the late Mr. John Sargeant, for long a resident of Wanganui, after whom the gallery is named. The plans and photographs explain the scheme; but generally it may be stated that, though departures from the accepted design were made during the execution, the main principle of lighting was carried out.

It is unfortunate that some of the illustrations show the gallery when filled with an overwhelming number of pictures obtained from all parts of the Dominion and Australia for the opening exhibition. It was never intended that the bays should be filled with pictures: this would necessitate visitors entering the bays and standing in the brightest light to view them, and overpowering reflections would of course result. The pictures should be placed on the end wall and be of such a size that they can be efficiently seen from a seat placed just within the bay. Pictures can also be placed on the side walls to within 6 or 7 feet of the inner end so that the spectator can see them when seated or in passing along the corridor, as illustrated in (5). By using the side walls of the bays in this restricted way the hanging space in the gallery will be more than doubled. In a pair of bays 16 feet deep and 12 feet wide, and their portion of corridor, we have 528 sup. feet of floor space to 52 lineal feet of picture space, or about 10 feet to 1 foot. I have shown the plan and elevation of the gallery as it is of interest to see the form of the building in which the Top-Side-Lighted method was first applied; but, as already stated, the plan of the building or the form of the architecture is quite immaterial to the success of the system.

It is not even necessary that the bay treatment should

be adopted (see Fig. 3); the only fundamental principle to be kept in view is that *the walls of the room—whatever its shape—must be much better lighted than the space in which the spectator stands*. The bay treatment as shown in Fig. 1 is only suitable for those pictures which can be best seen when standing some distance from them. This distance will naturally depend on the size of the pictures, and therefore the bays should be of varying depths so that they may be suitable for pictures of varying sizes. In this case eight of the bays are 16 feet deep, suitable for 8-foot pictures, and four of them 10 feet deep, suitable for 5-foot pictures.

It can be seen from (5) and (7) how effective the bay treatment may be. In (8) we see the disfigurement resulting from the white dado and white ceiling. The cove of the ceiling also reflects the rays of light which should have been absorbed by a dark tinted surface. In spite of these disadvantages the pictures are excellently lighted, and there need be no reflections either in the pictures on the end walls of the bays, nor in those on the sides of the bays next to the corridor.

Although the rooms provided for small pictures (6) are very well lighted, they are not as successful as they should be. Rooms, or bays, required for the exhibition of water-colours, or small oil-colours requiring close examination, should have the ceiling close to the limit of the height at which the pictures can be seen—not more than 10 or 11 feet, and for miniatures not more than 8 or 9 feet. This connotes that small pictures should be exhibited in small rooms, or bays with the ceiling brought down to the required height; and the light directed on to all the walls by the Top-Side-Lighted method. The small miniature room at Wanganui (Fig. 4) was lighted in this way with success. The room seen in (6) could be much improved if the ceiling were made much wider—as it could be without diminishing the light on the pictures—and the entrance were curtained as seen in the Ryks Museum (Ill. No. 1) and in Fig. 19, page 143.



FIG. 4.—THE MINIATURE ROOM, SARGEANT ART GALLERY

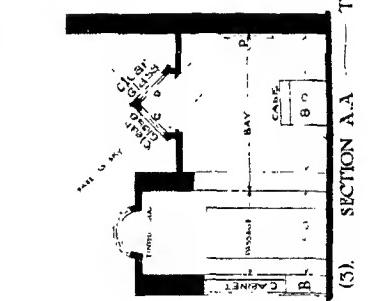
THE SOANE MUSEUM.



(1). THE ANTE- ROOM. — SHEWING GLAZED PICTURE QUITE FREE FROM REFLECTIONS.

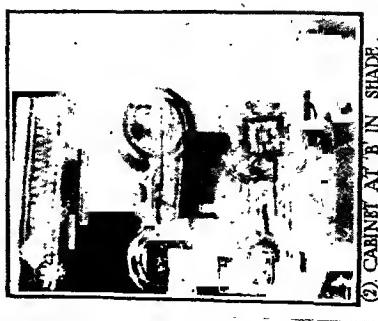


(2) PICTURE AT P IN GOOD LIGHT.

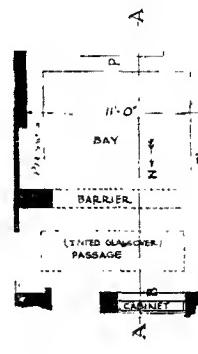


(3).

SECTION A.A. — THE ANTE- ROOM — — — (4). PLAN.



(2) CABINET AT E IN SHADE.



(4). PLAN.

ILL. NO. 4



As seen from the seats arranged in front of it. From a photograph—as it should be seen. As seen from the best point of view.

FIG. 5.—THE MADONNA ANSIDIE. NATIONAL GALLERY

ANTE-ROOM IN THE SOANE MUSEUM—AN ILLUSTRATION OF THE TOP-SIDE-LIGHTED METHOD.
(ILL. NO. 4.)

The Ante-Room in the Soane Museum is of the greatest interest in that it enables me to refer my readers to a London example of a perfectly lighted glazed picture which, by accident, is quite free from reflections. This small room, 11 feet by 8 feet, was formed after Soane's death in an area off a passage-way leading from the dining-room. This passage was lighted by Soane with tinted glass giving a subdued light, and the ante-room was lighted—as shown by section—with the usual form of double-pitched sky-light glazed with clear glass. The half sky-light (*C*) through which the rays of light pass to the picture is open to the sky, while that on the opposite side (*D*) happens to receive (in contrast with those at *C*) only feeble reflected rays from a dark brick wall, thus practically producing the conditions stated to be necessary for success in the Top-Side-Lighted method. The spectator stands in the subdued light of the passage-way and looks on to the brilliantly lighted picture in the bay.

The picture at *P¹* is in a similar position to those shown on the side walls of the bay in Wanganui Art Gallery : it can be seen to be well lighted and free from all reflections except those of the small pictures in the angle which should not be there.

The conditions are reversed in the case of the glazed cabinet at *B*, with the resulting hopeless confusion of exhibits and reflections seen in (2).

Other instances of the unevenness of lighting resulting from similar conditions external to the gallery may be seen in the Assyrian Gallery at the British Museum, and in our Portrait Room at the R.I.B.A., and the same effect is seen in an upper side-lighted room at the Museo Nationale at Rome, where the window is placed in the re-entrant angle of the walls.

REFLECTIONS.

In my original paper I showed the result of an experiment to prove that the reflections in glazed pictures and the pictures themselves were not in the same focal plane. It is the only instance in the whole range of nature where objects in one focal plane are superimposed on objects in another. It creates in the eye a greater strain than it can bear, and yet in the seventy years of art gallery construction no attempt has been made to get rid of it. This apathy is extraordinary when we consider the vast number of priceless paintings which are now so over-powered by reflections that it is quite impossible to see them. I can now show the result of this superimposition by photographs of pictures in a few of our galleries ; but in every gallery in the world the same thing can be seen wherever glazed pictures are exhibited.

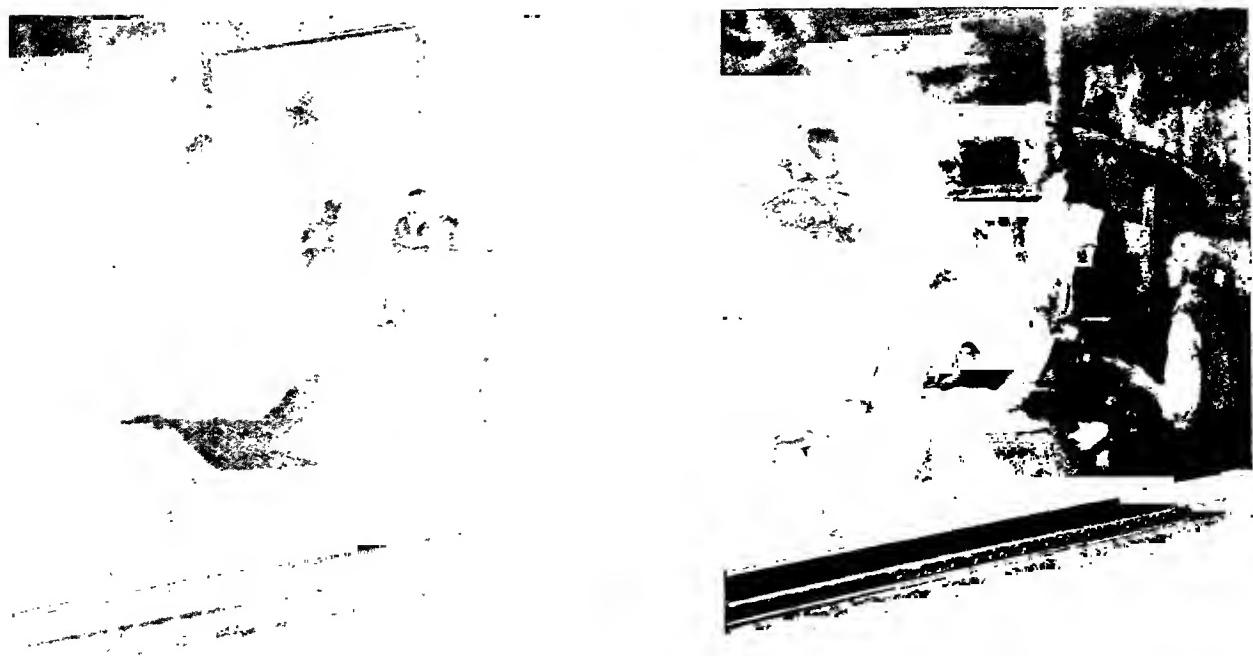
REFLECTIONS IN GLAZED PICTURES ARE NOT INEVITABLE.

It is not surprising that no progress has been made when a director of a most important gallery told me “Glazed pictures must reflect something,” and on suggesting to an eminent architect after he had pointed



EDINBURGH ART GALLERY

(1) GENERAL VIEW. A PLEASING VISTA OF OCTAGONAL BAYS, SHOWING STATUE OF CARLYLE



RENT DAY IN THE HIGHLANDS

(2) FOCUSED ON REFLECTIONS

ILL. NO. 5

(3) FOCUSED ON PICTURE

THE LIGHTING OF PICTURES

out to me the brilliant lighting of a gallery he had designed that it could hardly be regarded as successful when the picture we were standing by merely mirrored our reflections, he replied, "Oh, that is inevitable in all glazed pictures." It has been said that "Far too much has been made of this question of reflections." I am sure, on examining the photographs—Ill. No. 5—that those who think so will come to the conclusion that all responsible for art galleries must be strongly urged at once to take steps to improve the existing conditions. We need to realise the truth of Ruskin's words, expressed over sixty years ago, "that a picture which is worth buying is also worth seeing," and to this end that our buildings shall be made "*scientifically correct*, structurally perfect, and as architecturally magnificent" as the occasion demands and the funds allow.

EQUAL ILLUMINATION OF WALLS NOT NECESSARY NOR DESIRABLE.

It will be noted in Ill. No. 5 that when the camera is focussed on the reflections of the pictures on the opposite walls, or the reflections of objects in the centre of the room—as the statue of Carlyle—the reflections are sharp, and the figures in the picture blurred. If focussed on the picture the reflections are blurred; but in both cases there is a constant struggle for mastery creating an acute eye-strain and consequent "museum headache." This is particularly pronounced in all cases where the picture and the reflections are of the same intensity; or, in other words, when the pictures on both sides of the room are equally lighted and are of the same tone. This result is always seen in very high top-lighted rooms; for if the room is so high that the space above the pictures is better lighted than the pictures themselves, there would be general diffusion of light at the floor level causing equal illumination of spectators and pictures, and consequently reflections of equal intensity with the picture.

It is astonishing how a very little difference in illumination on the walls makes a very decided difference in the reflections. Oftentimes the illumination of the two walls is apparently equal, but the reflections on one side

are much more pronounced than the reflections on the other, and it is seen at once by examination that the side which has the most intense reflections is a few degrees darker than the opposite wall.

Quite different conditions exist if the room is low (see Fig. 7, p. 133), and the pictures therefore near the source of light and consequently brilliantly lighted. In this case those on one side will always be perceptibly brighter than on the other; for in any gallery—whatever the direction of the axial line—there can only be equal illumination of its walls for a

very short time when the sun's rays are parallel to the axis. So far, therefore, from unequal illumination of walls being a disadvantage, it is a decided advantage, for it ensures that there shall be at any rate pictures on one side of the room that can be well seen and enjoyed.

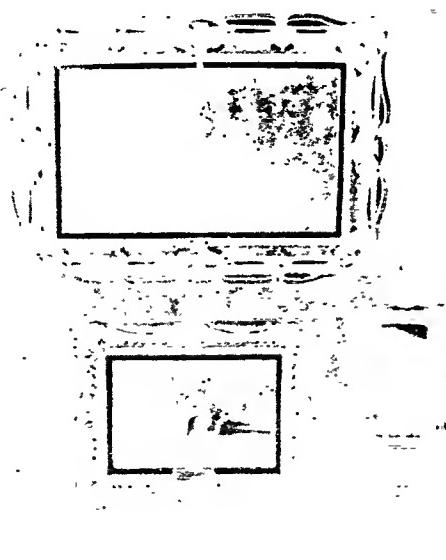


FIG. 6.—SIDE-LIGHTED ROOM IN THE LOUVRE

Top picture unglazed, but destroyed by glitter because wrongly inclined. The lower one glazed, yet quite free from reflections because side-diagonal lighted (see Fig. 21, page 143).

see the whole of the collection, and it would certainly be a great delight to visitors to find that they could study and thoroughly enjoy at least one-half of the collection at whatever time the visit was made. Thus, for the expenditure of only a few pounds, might the little realised beauties of our masterpieces be revealed.

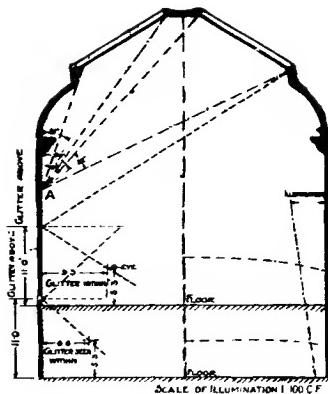
EXPERIMENTS BY H.M. OFFICE OF WORKS.

(ILL. NO. 6.)

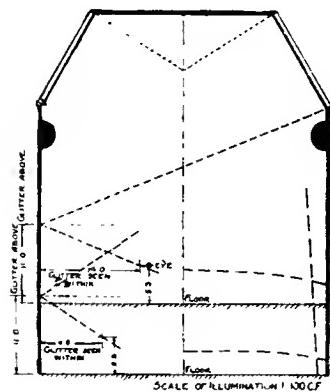
In 1917 Sir Frank Baines, Director of His Majesty's Works, gave considerable study to gallery lighting in connection with a new roof proposed to be erected at the National Gallery.

DISTRIBUTION
—OF—
ILLUMINATION
—IN—
PICTURE GALLERIES

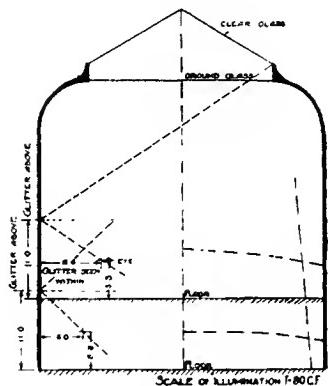
SCALE 4' TO 1'



(1)



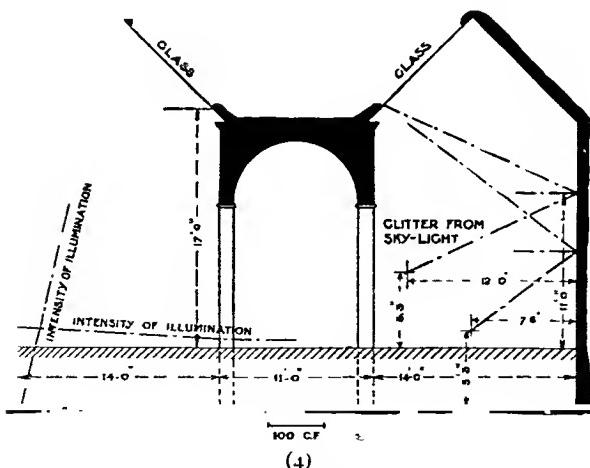
(2)



(3)

(1) & (2) TOP-LIGHTED WITHOUT CEILING LIGHT

(3) TOP-LIGHTED WITH CEILING LIGHT



(4)

(4) TOP-SIDE-LIGHTED METHOD

REDRAWN FOR PUBLICATION FROM DIAGRAMS PREPARED IN H.M. OFFICE OF WORKS
PUBLISHED BY THE COURTESY OF SIR FRANK BAINES, M.V.O., C.B.E.

ILL. NO. 6

THE LIGHTING OF PICTURES

The report prepared under his direction strongly recommended the adoption of my Top-Side-Lighted method, it being considered that "this lighting would be as near to the ideal as possible."

Sir Frank consulted the scientists of the National Physical Laboratory, and at their request a model was made in order to test scientifically the system, and in addition to carry out experiments for the purpose of determining the best means of preventing the sun's rays from entering the gallery and obtaining equal light on both sides at any time of the day. The result of their experiments they have published both in the *Illuminating Engineer*, April, 1922, and in our own JOURNAL in October. Through the kindness of Sir Frank Baines I have been able to study the reports and diagrams prepared under his direction. They are valuable reports in that the question has been studied in a scientific manner, and long series of accurate tests of lighting conditions have been made and clearly recorded. This scientific investigation supplements and proves the truth of the observations I had made by the cruder method of using a photometer. The diagrams which I am privileged to publish show by the dotted lines the *exact amount* of light falling on the walls and floors of galleries lighted by different forms of roofs.

ILLUMINATION OF GALLERIES.

Ill. No. 6 shows three types of top-lighting, and each shows a double floor, the one 11 feet higher than the other. It will be seen at a glance that in all galleries lighted by any form of top-light, whether it be single glazed with the sky-lights in the slopes of the roof or double glazed with a flat ceiling light, all have the floor illumination *increasing* from the junction with the walls to the space occupied by the spectators, where the light in all cases is greater than that falling on the space occupied by the pictures.

It will be noted that in each of these diagrams the effect is more pronounced in the less lofty rooms represented by the upper floor lines in the diagrams. The general diffusion of light resulting from making the rooms higher is seen by the dotted line over the lower floor, where the light on the floor is nearly equal over the whole area and is three or four times the amount of light on the picture.

(4) shows the result of experiments in Top-Side-Lighted method. Here it will be seen by the dotted lines showing the intensity of illumination that the conditions are reversed—that the greatest amount of light falls on the pictures, and that there is a diminution of light on the floor from the wall to the space where the spectator stands. The gallery is drawn too high, so that general diffusion of light has tended to equalise the light on the floor ; had it been drawn 14 feet high, the

height of the Wanganui Art Gallery, the result would have been much more favourable.

But the most important point to notice is that, whereas in the top-lighted galleries there is no part of the wall which is as well lighted as the centre of the floor, in the Top-Side-Lighted method there is, on the other hand, from two to three times more illumination on the picture space than on any part of the floor. It is not the exact amount of light, but the comparison between the lighting of the walls and floor (*i.e.*, the spectators and objects on the floor) that constitutes the most important part of these investigations. The exact amount of light is of minor importance as compared with the relative illumination of the pictures and the spectator. The pictures and the reflections always bear the same relationship—they may be both very bright or both very dim, or be illuminated in any degree between these extremes. In every case, as the illustrations show, the reflections are there, interfering with the enjoyment of the picture.

VARIATION OF LIGHT.

The amount of light in the rooms I photographed varies enormously. Expressed in terms of time required for the exposure, it varies from 11 seconds in Room 25 in our own National Gallery, the New Gallery of Modern Art at Rome, and other brilliantly lighted galleries, to 1,500 seconds in one of the side-lighted rooms at the Palais des Beaux Arts at Brussels and many other galleries on dull days. Yet in the one case the rooms were not painfully bright nor in the other painfully dull. This is only what we have reason to expect when we are told that the eye can readily accommodate itself to a light equal to 8,000 foot candle-power in bright sunshine, and to a light equal to 1/100 of a foot candle-power in moonlight.

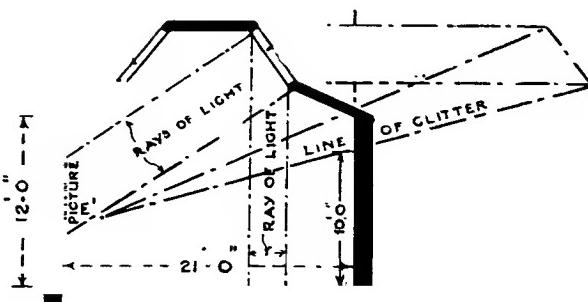


FIG. 7.—SECTION OF THE SOUTHAMPTON ART GALLERY

This gallery is especially well adapted for conversion into a Top-Side-Lighted one by shutting out the light with dark blinds on one side at a time. The inclined ceiling on the side of the exposed sky-light would form a good shade for the spectator, and he would be in a subdued light, even when standing in the centre of the room.

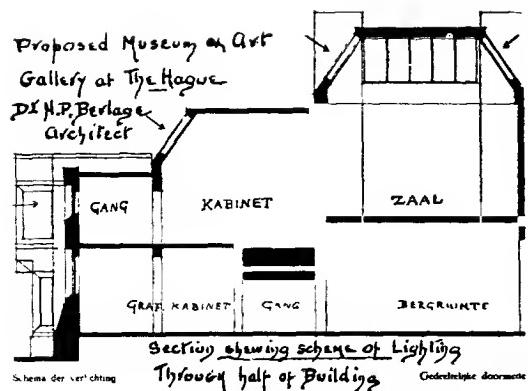


FIG. 8.—SECTION OF SCHEME OF LIGHTING

Proposed Museum, Art Gallery, etc., for the Municipality of The Hague. Dr. H. P. Berlage, Architect

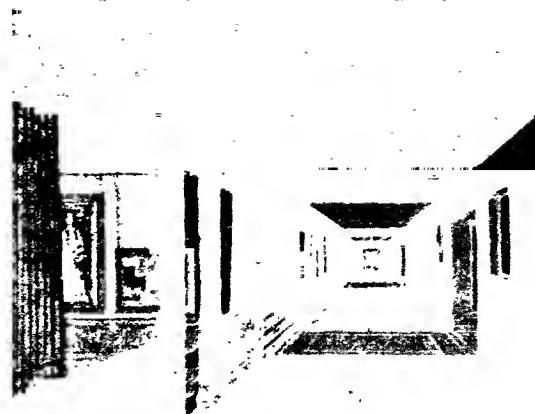


FIG. 9.—VIEW IN CORRIDOR

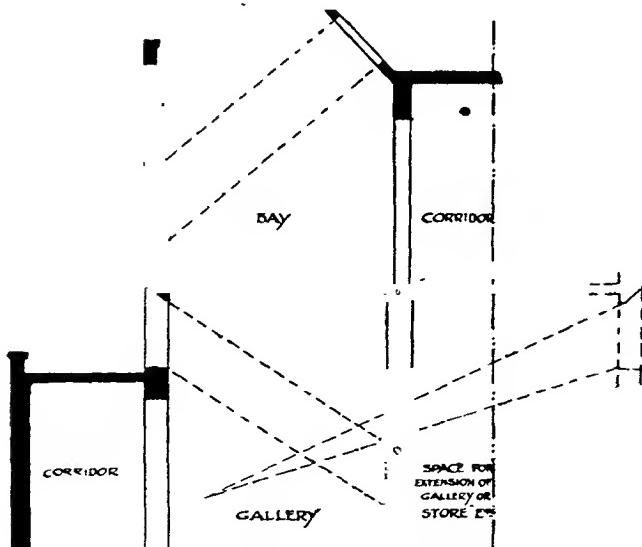


FIG. 10.—SUGGESTED METHOD OF USING THE TOP-SIDE-LIGHT FOR TWO-STORY BUILDINGS

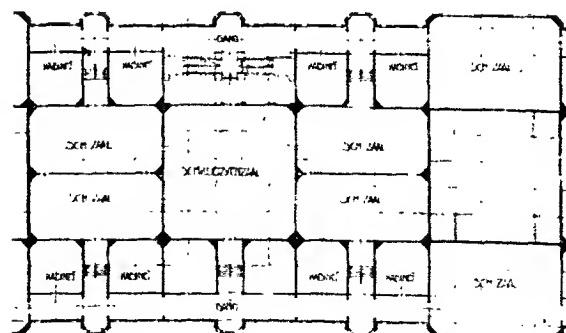


FIG. 11.—PLAN OF PART OF ART GALLERY, SHOWING CORRIDORS AND "CABINETS" FOR PICTURES, AND LARGE INTERIOR ROOMS FOR PICTURES OR GENERAL EXHIBITS

THE LIGHTING OF PICTURES

PROPOSED MUSEUM AND ART GALLERY AT THE HAGUE.

At The Hague, in 1920, I had the pleasure of meeting Dr. Berlage, the famous Dutch architect, who was then engaged upon the initial stages of his remarkable design for this building. At his invitation, I examined the plans, and consulted with him in respect to the lighting. He had already constructed a model room : this he afterwards altered to conform to my Top-Side-Lighted method, and so satisfied were Dr. van Gelder (the Director) and himself with the result that they determined to construct the picture galleries on those lines. Dr. Berlage has kindly now forwarded me the illustrations of the model of the whole work and drawings published in *The Hague Municipal Science and Art Journal* of January 1921. The description of the scheme is by Dr. van Gelder, who says (page 47) : "The lighting of the cabinets and the rooms is in accordance with the prescribed demands—Top-Side-Light. A proof made on the site showed that this kind of lighting answers the purpose in an extraordinarily good way." The Top-Side-Lighted method with the central corridor as carried out at Wanganui (Fig. 1) enables the visitors to pass through the whole building without interfering with the comfort of those who are examining the pictures. Dr. Berlage and Dr. van Gelder determined that the corridor system should be adopted, but it has been carried out more in accord with the way I suggested for two-storey buildings (Fig. 10). Dr. Berlage has skilfully improved on the suggestion, and, as can be seen from the illustrations (Figs. 8 and 9), the scheme would be a very effective one. The corridor has projecting bays on the outer side—opposite the steps leading to the inner larger rooms—to act as rest places. The treatment of the entrance to the bays is admirable. The low screen against which the seats are placed more effectively separates the bay from the corridor without in the least interfering with the view of the passer-by. Dr. van Gelder tells us that "As regards the larger rooms, which have Top-Side-Light all round, it is the intention to make such arrangements that the superfluous light shall be softened and screened." I have shown (page 131) how easily the top-lighted galleries of this form may be converted into Top-Side-Lighted ones, and Dr. Berlage and Dr. van Gelder have evidently realised the same thing, and have, I think, wisely proposed the construction of some rooms which—with high inclined lights all round—would be eminently suitable for general museum purposes, and at the same time be most easily adapted to the special requirements of picture lighting stated on page 123. It is to be hoped that at least some portion of this magnificent building will be erected at no distant date to mark the inauguration in Europe of a new era in museum and art gallery planning and lighting.

PRESENT GALLERIES CAN BE IMPROVED.

It will be said that it is useless to offer the "counsel of perfection" to the hundreds of Directors who are already in charge of art galleries and museums constructed on totally wrong principles. I have spent many months studying and photographing in all the principal European galleries for the purpose of noting the defects and considering the manner in which they may be remedied. The large collection I have formed I hope to publish shortly, but in the meantime I now show the result of studies in a few of the galleries, by which it will be seen that very great improvements indeed might be effected in all galleries if only earnest consideration were given to the question. Under the present conditions it is impossible that all, or even the greater number, of the priceless pictures in our galleries can be perfectly seen, but such improvements might be made that at least the greater number could be well seen from at least one point of view. It is in the endeavour to help Directors to realise how such improvements can be made that I submit the following illustrations and notes for their consideration. In many cases the improvements would cost nothing, and the most radical changes suggested would certainly cost but a very small fraction of the value of the pictures they would improve. It is not surprising to learn that millions of postcards and photographs have been sold at our National Galleries, for it is at present only by photographs taken with the aid of large black cloths to shut off the reflections that the beauty of the pictures can be realised. In a very large number of brilliantly top-lighted galleries the Top-Side-Lighted method might be utilised by constructing within them the partitions and ceilings as shown in sections, Fig. 1 and Fig. 3. Care would have to be taken that the light from the skylights falls direct on to the pictures. This cannot be done in some of the lofty galleries, and in this case the system, to be successful, would have to be carried out on a raised floor. In many cases the floor could be raised sufficiently high above the present one to give a very useful storage space or even electrically lighted rooms. In some instances a central corridor-gallery—as in the original part of the South Kensington Museum—could be formed so that the spectator might be raised high enough to view pictures hung in the best lighted part of the walls. This question of raising the spectators* is of importance : very many pictures hung on the line which it is now impossible to see when standing on the floor level could be perfectly seen if the spectator were raised a few feet.

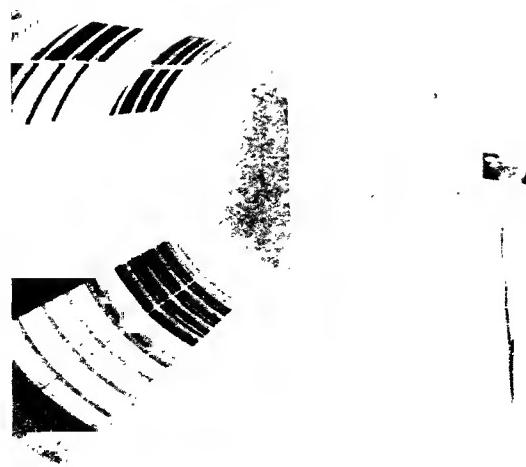
This is demonstrated even by the difference between a sitting and standing posture—a difference of from 12 inches to 18 inches : for many reflections which can be seen when the spectator is seated disappear entirely when he stands up.

* Referred to by Mr. Gilman, who quotes Prof. Brückes.

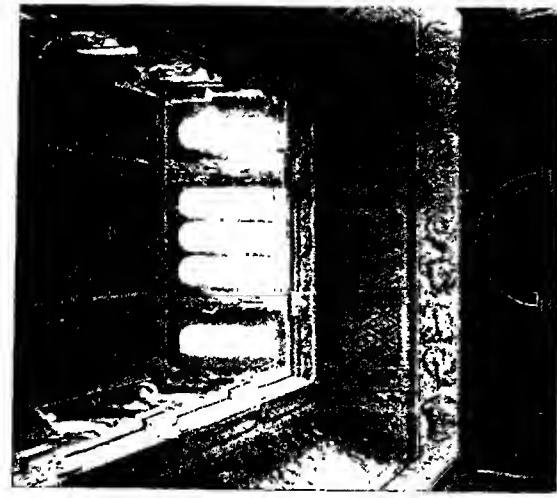
THE TATE GALLERY

THE FITZWILLIAM MUSEUM

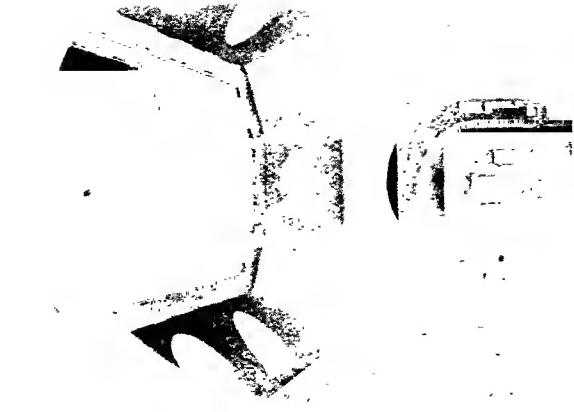
THE DULWICH GALLERY



(1) THE TURNER ROOM, IN WHICH A CENTRAL CORRIDOR-GALLERY MIGHT BE FORMED



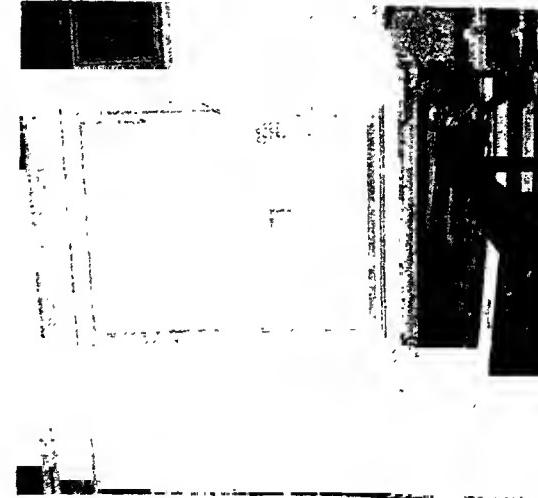
(3) SHOWING ELABORATE LANTERN LIGHT, ARCHITECTURAL MAGNIFICENCE PRECEDING SCIENTIFIC CORRECTNESS



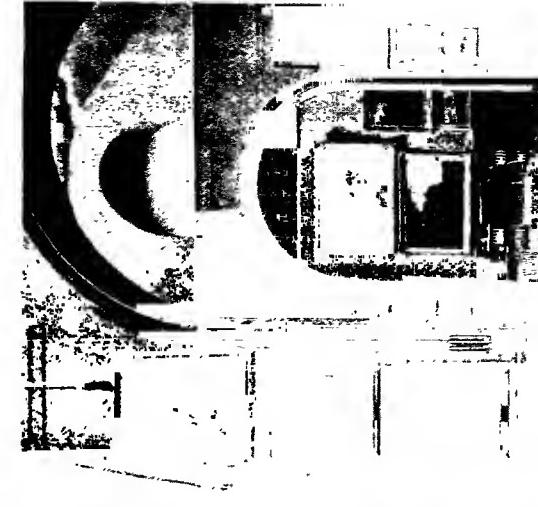
(5) VIEW IN CENTRAL HALL, SHOWING SOANE'S LANTERN LIGHT, ALTERED AT TOP



(2) ROOM NO. 1, SUITABLE FOR ADAPTING TO THE TOP-SIDE-LIGHTED METHOD



(4) THE DIFFUSED LIGHT, OWING TO LONG ROOM, GIVES STRONG REFLECTIONS



(6)

VIEW ACROSS GALLERY. THESE TWO VIEWS GIVE A STRIKING EXAMPLE OF IMPROVED EFFECT WHEN LIGHT IS HIDDEN (See Fig. 19)
ILL. NO. 7

THE LIGHTING OF PICTURES

THE EDINBURGH ART GALLERY.

(ILL. NO. 5, page 130.)

The Edinburgh Art Gallery is formed of a series of octagonal rooms. They are top-lighted with ceiling lights. The divisions prevent these being seen, and consequently a very pleasing vista is created—furnished with white statues and busts which, while enhancing the general effect of the gallery, give the most powerful and irritating reflections in all the pictures. The statue of Carlyle in the foreground is seen strongly reflected in (2) and (3).

It is very difficult to see how a gallery of this type can be improved. Improvement might be effected by preventing the light coming on to either side as suggested in referring to "Defects," page 131, but it is a good instance of a pleasing effect as a whole being obtained at the expense of the lighting of the pictures themselves. A great deal, of course, could be done by judicious inclining of the pictures. Certainly a very great improvement in respect to the pictures might be made by removing all the white marble statues and busts to form a separate collection apart from the pictures.

THE TATE GALLERY.

(ILL. NO. 7.)

The Tate Gallery provides some interesting examples of lighting. All the rooms are far too high, making all pictures of moderate size look woefully insignificant on their walls, and the flood of light which falls on the spectator makes reflections in all pictures overpowering. The proportion of the rooms makes them suitable only for the largest pictures, and yet these reflect not only all the spectators and objects in the room, but even the sky-light itself in a large part of the picture. This is seen in Watts's fine picture, "The Court of Death." The picture itself it is impossible to see from any point of view. As pointed out in my original paper, the defect could be wholly cured by hanging a curtain across the room at a suitable distance from the picture to a little below the top of the picture. I have referred to the possibility of utilising the Top-Side-Lighted method within top-lighted galleries. This might well be carried out in Room No. 1.

In the Turner Room the lights are far too high for this to be successful: In this case the expedient of forming a central corridor-gallery at the required height for viewing the pictures might be adopted.

THE FITZWILLIAM MUSEUM.

(ILL. NO. 7.)

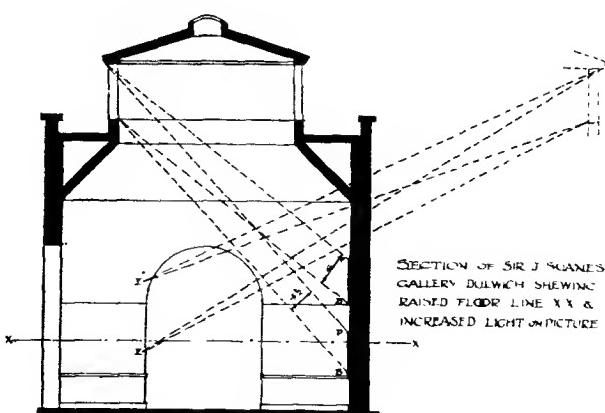
The Fitzwilliam Museum shows an imposing interior lantern-lighted with all the most valuable light high above the space available for pictures. It is 53 feet high. For this design the advice of Sir Charles Eastlake was

obtained, yet, as can be seen in (4) the reflections are overpowering, and that it is impossible for the Director to display his exhibits so that they can be properly seen. In this case the only remedy is the erection of a central corridor-gallery as above recommended for the Tate Gallery and other lofty rooms.

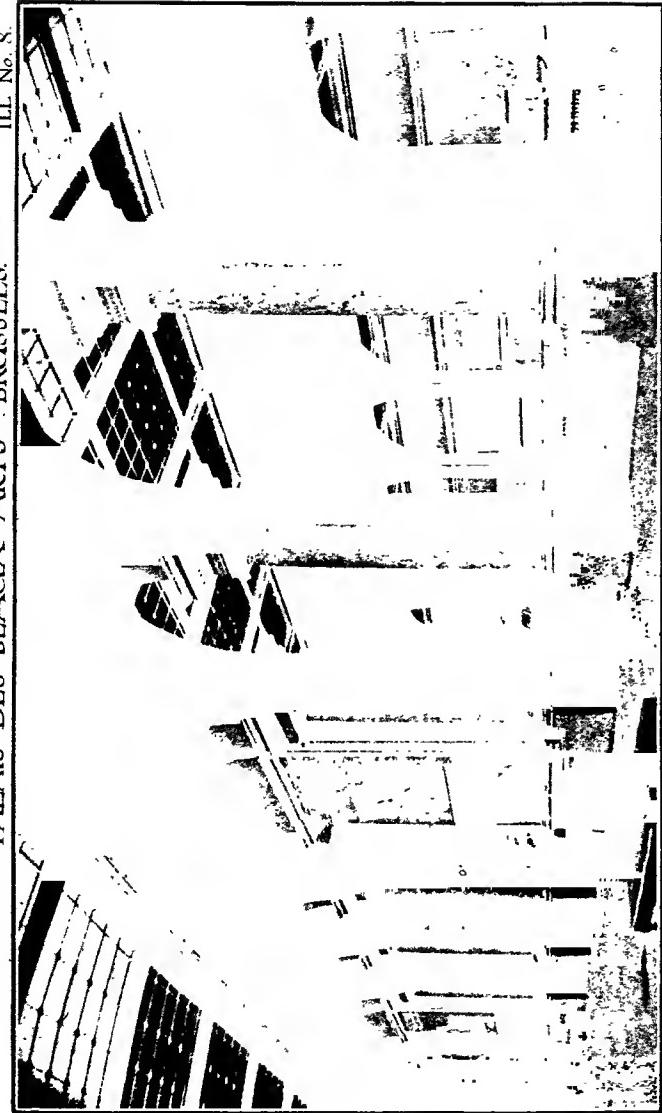
THE DULWICH GALLERY.

(ILL. NO. 7.)

Dulwich Gallery is certainly one of the most pleasing and satisfying galleries in Europe. It is not so large as to be overwhelming, and it is so artistically arranged that pleasing vistas are formed in various directions. The vista down the central gallery (5), with the varying tones of light on the arch divisions, is a beautiful one, and it shows how effectively the pictures can be arranged on partition walls to form a series which can be easily seen as one passes along the gallery. The only defect in this vista is the mass of brilliant light from the lantern. Originally all the sloping part was formed solid by Soane, but the Directors, thinking that there was not sufficient light in the gallery, instead of raising the floor so that the pictures might be hung nearer to the source of light, decided to glaze the whole upper part. They certainly produced a much more brilliantly lighted room, but not one in the least degree better adapted for the exhibition of glazed pictures. (6) gives us a very effective view across the central gallery, showing the great advantage of being able to see the pictures without at the same time being dazzled by the source of light. These two illustrations form a striking object-lesson in this respect. The variety in brilliancy of the lighting in the rooms in (6) results from the manipulation of the blinds. That the central end picture is placed far too high in relation to the source of light can be seen by the glitter in the upper part of it, which would increase as the picture is approached.



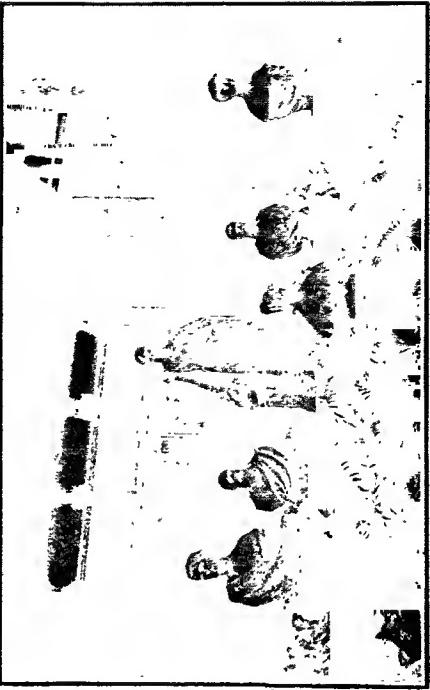
PALAIS DES BEAUX ARTS—BRUSSELS.



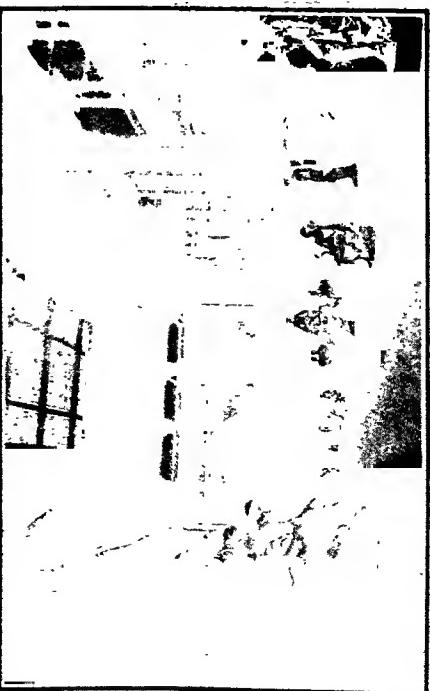
1. ALL PICTURES UNGLAZED, SHELVING

— THE GALLERY.

UNPLEASING TURNING TO AVOID GUTTER.



2. SHELVING EXCELLENT — THE CENTRAL HALL. — ARRANGEMENT OF SCULPTURE — SENSIBLE DEFECTIVE — GROUP OF SCULPTURE — THE ROYAL FAMILY.— LESTING OR GALLERY.



ILL. NO. 8



FIG. 13.—THE CENTRAL HALL—AN IDEAL BUILDING FOR THE DISPLAY OF SCULPTURE. GLASS ROOF SCREENED BY MUSLIN VELARIUM

THE GRAND PALAIS, PARIS



FIG. 14.—THESE FIGURES BY M. FELIX DESRUELLES SHOW THE EXCELLENCE OF THE LIGHTING

THE PALAIS DES BEAUX ARTS AT BRUSSELS. (ILL. NO. 8.)

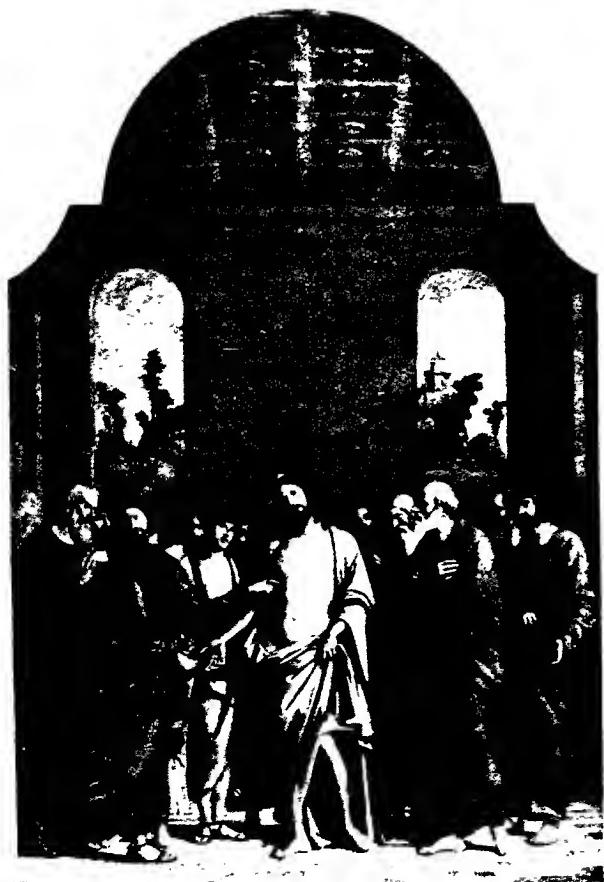
This Gallery is yet another instance of large sums of money having been spent in the erection of a building which fails to completely fulfil the purpose of its erection. It is a most interesting and attractive building with excellent architectural effects, but quite unsuited for the exhibition of pictures. The large central hall is well suited for the exhibition of sculpture, for the strong top light is softened by the diffusion of light from the surrounding galleries. The effect is, as can be seen, very fine owing to the artistic manner in which the sculpture is displayed, but as a sculpture gallery it does not come up to the ideal reached in the Grand Palais at Paris (Fig. 13 and Fig. 14), in which the exhibition of the Salon sculpture is held. The sky-lights, in contrast with the dark solid-coffered ceiling, create a brilliant glitter quite destructive of the artistic effect of the whole. The lighting would be greatly improved by hanging curtains in the arches as far as the entablature. The improvement this would effect can easily be realised on looking at (3). An improvement would also be effected by forming coffers under the central sky-light either by plaster work or in a temporary manner

with light drapery, the divisions corresponding with the bars of the sky-light frame. This treatment would not be suitable except for sculpture and museum exhibits, or in any cases where it is needed that there shall be no interference with the downward flood of light.

In the view of the gallery it can be seen that the treatment suggested would be most valuable. Of course, it would not convert the galleries into suitable places for the exhibition of pictures, but it would help considerably in creating a pleasing effect. It is only because the pictures are unglazed that they can be seen at all. To avoid the glitter in them caused by the reflection of the skylights they have to be inclined to an unpleasing extent. This could be avoided by hanging dark curtains a few feet deep dividing the gallery skylight longitudinally in such a way that the pictures would receive direct light only from the portion of the skylight nearest to them. This could only be regarded as a temporary expedient. The galleries are very well suited for forming within them a single row of Top-Side-Lighted bays next the outer wall, leaving a very interesting corridor next the gallery arcade. In the other parts of the building are side and top-light galleries of the usual construction and with the usual defects.



(1) THE NATIONAL GALLERY, ROOM 25. Much over-lighted. A most suitable room for converting into a Top-Side-Lighted Gallery with the Van Dyck—now obliterated—as a grand ending to the central arched corridor



(2) AS IT SHOULD BE SEEN

THE INCREDOULITY OF ST. THOMAS, NATIONAL GALLERY, CENTRAL HALL

A remarkable reflection of the Lunette of the Dome, filling exactly the semicircular space, and quite obliterating the coffered ceiling of the picture. Note the reflection of white walls in each (1) and (3)



(3) AS IT IS SEEN

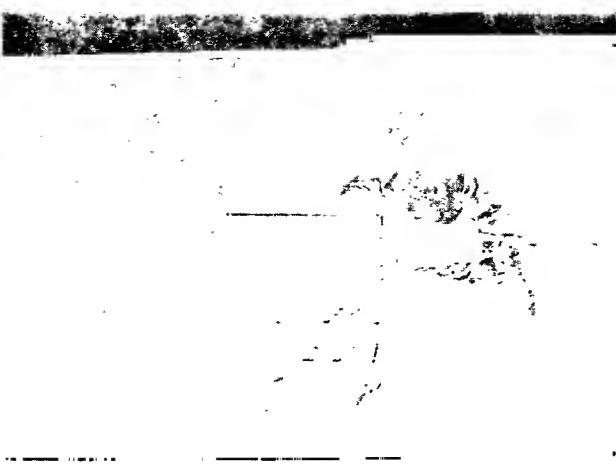


FIG. 15.—AS SEEN. REFLECTION OF WHITE WALLS

"SHEPHERD PIPING." WALLACE COLLECTION



FIG. 16.—AS IT SHOULD BE SEEN

THE IMPORTANCE OF SUITABLE COLOURINGS FOR WALLS AND CORNICES.

The pictures hanging on the light-coloured walls of the Wallace Collection (and of all other galleries) (see Figs. 15 and 16) show not only that this form of roof is quite unsuited for the exhibition of glazed pictures, but they also give extremely interesting illustrations of the fatal error of colouring the walls in a tone much lighter than the tone of the pictures. This room runs north and south, and in the morning the reflections in the pictures on the east side, and in the afternoon in those on the west side, are quite overpowering. It needs the reproduction of a photograph (Fig. 16) to enable us to see what the picture is like. That this picture would be infinitely better seen even in the afternoon if the walls absorbed instead of reflected the rays of light can at once be realised by noting that those parts of the picture (Fig. 15) which are within the reflections of the dark pictures on the opposite wall can be fairly well seen, while all those parts which reflect the light-coloured wall can either not be seen at all, or are with difficulty distinguished, as are objects seen through a white fog or through a white muslin curtain.

The room has more than enough light, and all the pictures could be very well seen if dark blinds were used for shutting off the light from one side or the other as already suggested under "Defects" (page 131).

THE EFFECT OF BRIGHT-COLOURED WALLS.

If the walls are of a bright colour the effect is—not to obliterate the picture—but to spread over them the

hue of the wall whenever there is a bright light. This was pointed out by Professor Silvanus Thompson in a discussion held under the auspices of the Illuminating Engineering Society in March, 1914, and published in their Journal of that date. He said "A very remarkable example of misjudged treatment of wall space was afforded by one of the largest rooms, the Turner Room, in the Tate Gallery, where the space above the pictures up to the skylight was a strong crimson tone, with the result that when the light was coming in through the skylights, and struck on that crimson wall, all the pictures opposite were illuminated by a red light, and not by a true daylight, and they were ruined in some aspects. On a bright day, with fleecy white clouds, and occasional alternations of bright sunshine and shadow, so that the red wall was lighted up brilliantly, and then plunged into comparative darkness, the pictures absolutely changed colour."

At the same meeting the very unconsidered opinion was expressed that the walls, "while not being white, should be as pale as possible." "Unconsidered," because the question under discussion was the *proper illumination of pictures*, not schemes of decoration.

It is the publication of the opinions of those who cannot have given a moment's consideration to the subject, nor have entered any gallery with a "seeing eye" that has befogged the issue and prevented any progress being made. It is a fundamental rule that there must be no reflected light interfering with the direct lighting of the picture, and it is a scientific truth often expressed that dark colours absorb light, while pale colours and polished surfaces reflect it. The "direct" light from the source of it may, of course, be as diffused, as sub-

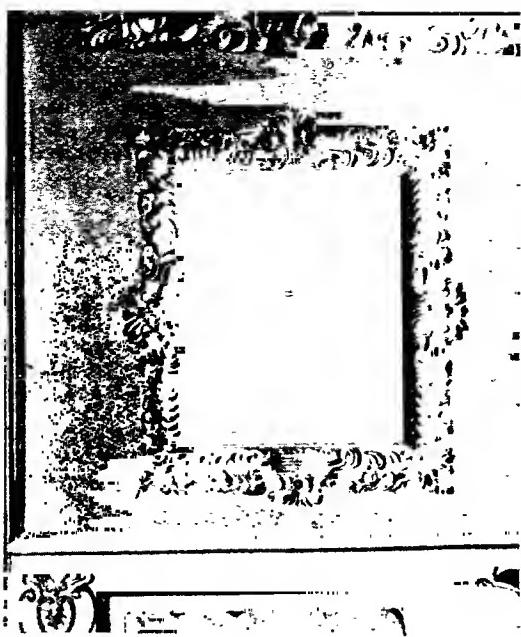


FIG. 17.—PICTURE FLAT AGAINST WALL. PITT PALACE

dued or as bright as we wish—whatever its character, it must fall on the picture *from one source only*.

The exact amount of light reflected has been lately shown by the valuable researches of Dr. Rayner and Messrs. Buckley and Walsh, who tell us that (with artificial illumination) white ceilings reflect 80 per cent., white walls 70 per cent., buff walls 60 per cent., while the dark-toned bluish-grey reflects only 25 per cent., or conversely, absorbs 75 per cent. The necessity for dark-toned neutral colour for the walls of galleries where glazed pictures are exhibited is at once apparent.

THE PITT PALACE.

In the Uffizi and Pitti Palaces one does not expect to find any perfection of lighting, and we are, therefore, not disappointed. We take them for what they are—noblemen's palaces—on the walls of which are hung some of the most beautiful pictures in the world. The great majority are not glazed, and can, therefore, be fairly well seen.

Although we do not find any features to follow, we do find some very interesting examples to show the great value of the diagonal system of lighting adopted in the Top-Side-Lighted method. It is here we can study the effect of hanging pictures hinged on their vertical edge. In Figs. 17 and 18 is seen the great value of the system in certain cases in overcoming the defects of lighting. In this case the picture, when brought out

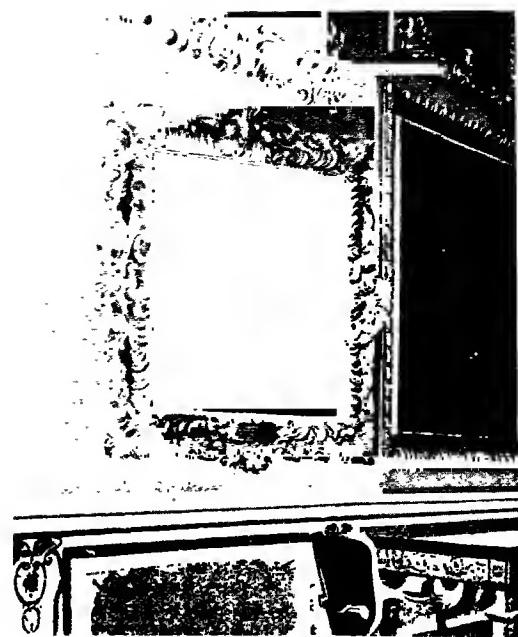


FIG. 18.—PICTURE BROUGHT OUT TO ANGLE OF 40 DEG., SHOWING BETTER LIGHT

from the wall (as in Fig. 18), so that it has an inclination to the rays of light from the window of about 40 deg., can be seen to be far better illuminated than when lying flat against the wall, as in Fig. 17. The diagram, Fig. 21, reproduced from my original paper showed that by swinging the picture to the position shown we should get about one-third more light. The photographs give the necessary proof.

If the plan is looked at as if it were a section of a gallery with the wall in the plane of the inclined picture, it will be seen that it illustrates exactly the Top-Side-Lighted method turned over on its side, when it may be considered to have become the Side-Diagonal method. I shall be able to show many pictures in side-lit rooms excellently lighted in this way (see Fig. 6, page 131, and Fig. 24, page 144).

ACADEMIA DI SAN LUCA, ROME.

This unusual section affords a striking illustration of want of thought in respect to picture lighting (Fig. 22).

It can be seen by the diagram that when standing at the proper place E for viewing the nine-foot high unglazed picture P, it is quite impossible to see it in its entirety by reason of the bright glitter, which, as the dotted lines of reflection show, pass right across the centre of it. By inclining it to P^1 , as shown, the glitter point would be raised above the picture, which could then be perfectly seen from any point of view.

Another interesting illustration is seen in the same

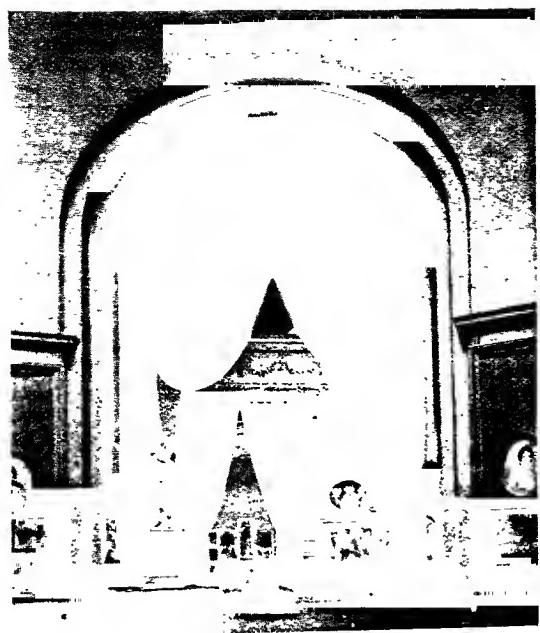


FIG. 19.—FINE EFFECT BY SHIELDING SKYLIGHT
SIMILAR ROOMS IN THE GRAND PALAIS, PARIS

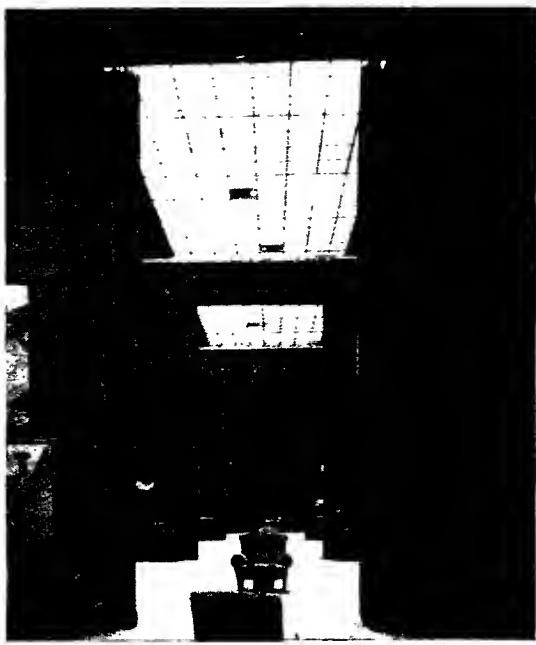


FIG. 20.—CRUDE EFFECT BY LEAVING SKYLIGHT EXPOSED

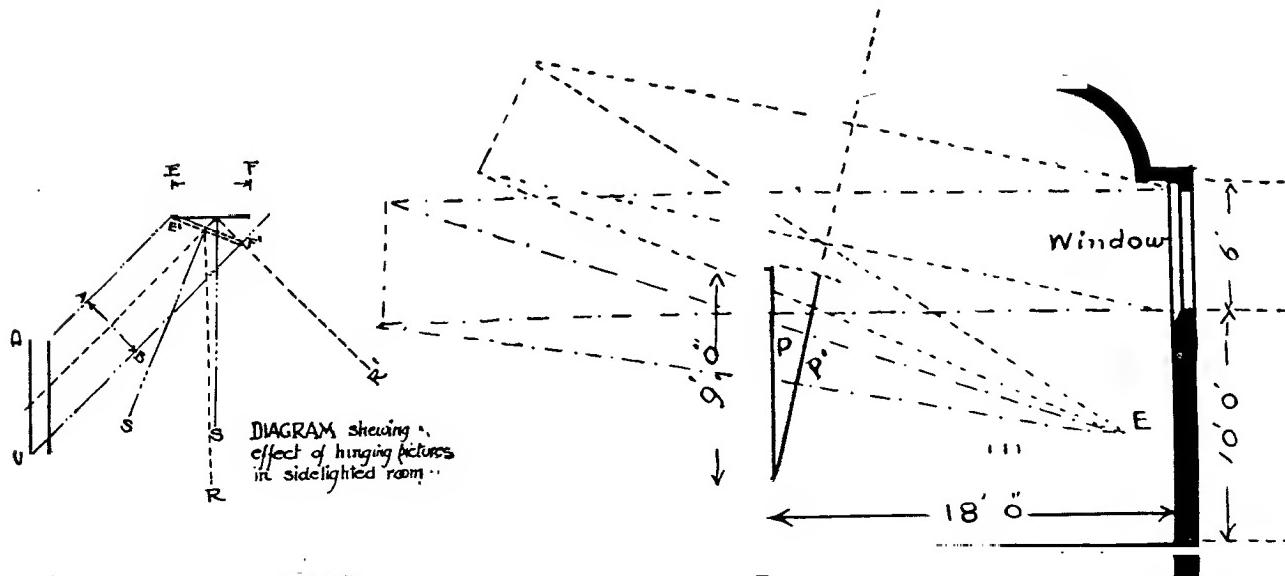


FIG. 21.—PLAN

If picture EF is flat against the wall, the reflection of window would be seen at R' , and the picture would be best seen at S midway between C and R' . If inclined at $E'F'$, the picture is better lighted, but the space for viewing is restricted to the distance between C and R .

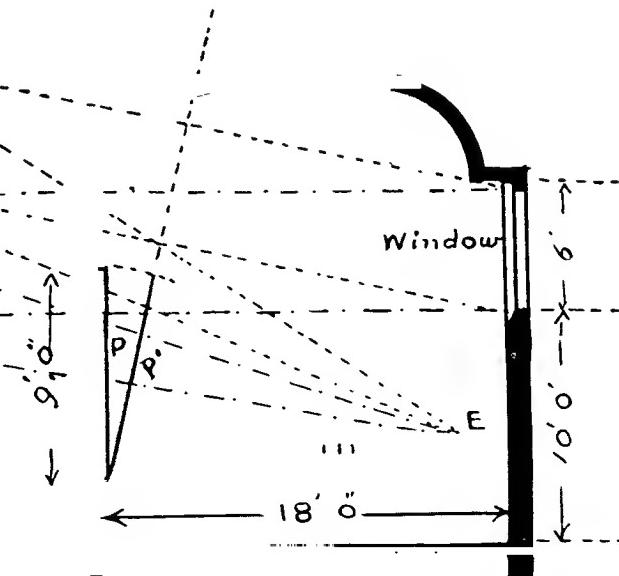


FIG. 22.

SECTION OF ROOM ATTIC-LIGHTED on one side, giving good light on the pictures on the opposite side.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

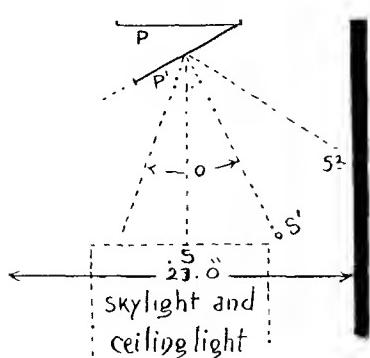


FIG. 23.—PLAN OF TOP-LIGHTED ROOM

building in a ceiling-lighted room (Fig. 23). The unglazed picture shown at P, when flat against the wall, could not be seen on account of the glitter formed by the ceiling light. It was hinged as shown, and when brought out to the angle P¹ it could be well seen within the angle O.

A slight reflection at the top of the picture was seen after passing S¹, and at S² reflections again obscured the picture. This interesting method of getting rid of top-light glitter or reflections might well be followed in many of our English galleries.

NEW GALLERY IN THE VATICAN, ROME.

The same effect as in Fig. 23 is seen in the new side-lighted gallery in the Vatican (Fig. 24). Two large unglazed pictures, B and D, when flat against the wall, cannot from any point of view be seen on account of the glitter from the windows W¹ and W² or W³; the fresco between them can, of course, be well seen. The pictures are hinged as shown, and may be brought out to the angle O—formed by drawing lines from the angles of the windows W³ and W¹—so as to shut off completely the glitter from them.

The pictures in this position are lighted from the window W², and, as can be seen by the construction of

the rays of reflection, the glitter from this window would be outside the picture when the spectator stands at S. This is the most suitable distance to see these fine works, and they should be permanently fixed in that position, as it is the *only one* in which they can be perfectly seen. Very few visitors to the gallery see these pictures because they are always placed back flat against the wall, and after making fruitless endeavours to discover the correct angle the effort is given up in despair. Pictures could be placed at O and O forming an equilateral triangle on plan, and they would be well lighted from W³ and W¹ respectively. This method has been adopted at the Palazzo Corsini with excellent results.

THE KIND OF GLASS AND THE METHOD OF FIXING BLINDS.

The kind of glass used is of the utmost importance. Mr. D. Macleod, B.Sc., of Canterbury College, N.Z., made for me a series of tests, and found that the glass which gave the greatest diffusion combined with the maximum light was the kaleidoscopic glass—one formed of small pyramids. The test can easily be made by placing the glass in the rays of light from a lantern, and it will in the same way be found that rolled plate glass—the glass which is almost universally used—is the worst.

At present the result of my experiments has led me to the conclusion that the best form of sky-light is one double-glazed, with clear glass* on the outside, and at a distance of about 4 inches from it an inner sheet of the kaleidoscopic glass forming an airtight and, of course, dust-proof space in which the blinds could work. It is most important that all blinds for both skylights and windows should be *rolled up at the bottom* so that the low light which is the cause of the greatest number of reflections may be shut off. I hope that we shall soon have as scientific a report from the National Physical Laboratory on this most important aspect of the question as that which their scientists have already presented on the illumination of walls and pictures.

* For water colours the glass made for protecting aeroplane silk might be used instead of clear glass.

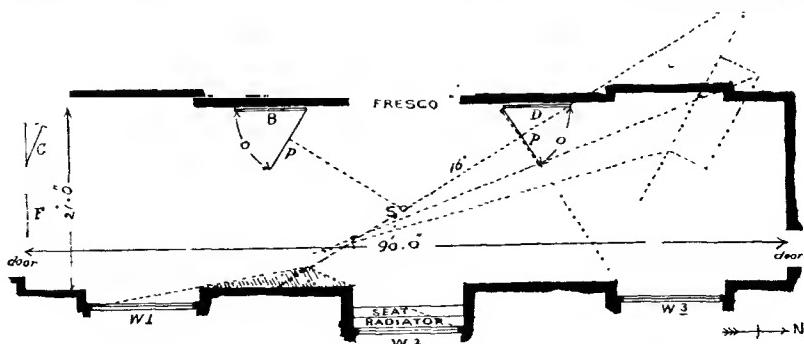


FIG. 24.—PLAN OF NEW GALLERY IN THE VATICAN, ROME

DISCUSSION

The Law of Building Outside London

Discussion on Mr. Shelley's Paper*

THE PRESIDENT, MR. PAUL WATERHOUSE, IN THE CHAIR

The PRESIDENT called upon Mr. Hart to propose a vote of thanks to Mr. Shelley for his paper.

Mr. W. E. HART (Town Clerk of Sheffield) : Before I move a vote of thanks, may I express my own thanks to the Council of the Institute for their great kindness in inviting me here to-night and giving me the opportunity of hearing Mr. Shelley's paper ? I should have been glad if I might have heard the views of members before speaking, but I have shortly to leave to catch a train.

I suppose I am invited here to-day because I was a member of the Departmental Committee, to which Mr. Shelley has made reference, which two or three years ago made a Report on the question of Building Regulations and Bye-laws. I should like to say, as this is the first opportunity I have had, that that Committee had very valuable assistance from members of your profession, and, I think, members of your Institute, who very kindly and freely gave their time and ability to help to elucidate the questions which were before it. Mr. Shelley has put before you, in a very condensed and yet comprehensive way, the findings of the Committee, as interpreted, to some extent, by his own personal feeling. There is only one thing I think I ought to add, and that is, that Mr. Shelley has been far too modest in what he has said with reference to the Report. There came a time when, after holding many meetings and interviewing a large number of witnesses, we had to consider the preparation of the Report. I have had some little experience myself in preparing reports, and I had in mind what I should do if I had to prepare this one. I had mentally noted certain points for consideration, and it was a surprise, and really a delight, to me when Mr. Shelley produced the very lengthy and learned document which in substance became the Report of the Committee ; that is to say, he gave us all the historical part, to which he has slightly referred to-night. The whole case was set out in its various parts so fully and clearly that it was a delight to read and follow it. I agree that the Committee took all responsibility for the recommendations, but every point which was dealt with was brought to our notice by Mr. Shelley, and he deserves the highest credit for his learning and assiduity.

The question I should like to speak on for a minute or two is just this : It is very desirable that members of your profession should have as little hindrance and difficulty placed in their way in regard to the erection of buildings as possible. The easiest way would be to let every man build what he likes, where he likes, and

as he likes, given that it is only the architects who are here to-night and those of similar type who would do the building. That might be a very desirable thing. But, unhappily, we come across cases which show it is absolutely essential there should be some restriction on the right of individuals to do as they like with regard to buildings. I have had some experience, being a lawyer and an official, as Mr. Shelley admits somewhat sorrowfully he is ; but I am not one of the high-brows of Whitehall ; I am an official of a provincial type, from a provincial town. I was, for some time, a member of an Urban District Council in the London area, and I was put on their Committee which had to deal with building plans. It is obvious that on the questions of sanitation and stability of structure and risk of fire there must be some regulations. How is that to be done ? Mr. Shelley has shown, as must be obvious, that an Act of Parliament dealing with these things is too rigid, is ineffectual, and will become a danger rather than a help. I very strongly object, personally, to giving too much discretion to Local Authorities ; I have seen cases where I think it is very undesirable. There should be some rule laid down that applies to all, and there should be no room for favouritism or influence. If that be so, I cannot conceive, under our present system of government, anything more effective than the bye-law system. It has the advantages of publicity, it has the advantage of enabling anybody interested, be he builder or owner or architect, to ascertain what exactly are the rights and powers that he has, and it does not leave scope for other influences which are undesirable. The question, however, is, can we arrive at something which is in the nature of a common regulation, a common system, of bye-law to apply to the whole country ? Of course, as was said before the Committee on many occasions, you cannot have the same regulations for a wind-swept hillside as for a sheltered district in a mild and humid climate ; but is it possible to secure a substratum of uniformity ? I can understand the feelings of the architect who puts up a building in, say, Birmingham, and then goes to Bradford and finds he has to learn the whole thing over again and find out what the bye-laws and regulations at Bradford are ; and I think it is most desirable that there should be some uniformity, a basic uniformity of bye-law and regulation, which can be the foundation for the country, with liberty to make variations to meet strictly local conditions and requirements. It seems to me that is the problem we have to face, and it is a problem we ought to try to cope with. I very much hope it will be competent for the Ministry of Health to draw the bye-

* See JOURNAL, Vol. XXX., No. 4, pp. 93-103.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

laws and regulations closer together. They have, if I may say so with respect, been a little too ready to listen to what Surveyor A. or Surveyor B. has had to say as to what is wanted for his own district, which often is a mere personal view of the official himself. Therefore there is room for bringing the bye-laws as a whole more into line. I honestly think that if that were attempted—and I have no doubt it is being attempted—it would help to make things simpler for all concerned. The variations due to local conditions might then be superimposed, but should be limited to what is actually required by the local conditions, and should not allow for fanciful conditions and alterations.

I hope that Mr. Shelley's interest in this question will help to bring into being some of the reforms which are set out in the Report and which have been referred to to-night. It is unfortunate it is so difficult to get a complete scheme of any kind through Parliament; we have to do these things by dribs and odds numbers. But I earnestly trust that your great profession will co-operate, as I am sure it will, and that your members will not only point out what they think should be set right, but will adopt Mr. Shelley's view and put their views from time to time before the Ministry, so that the Code can be periodically revised. I hope, too, that Local Authorities will more and more realise that they are the servants of the public, and that they are not there to force their own views, or the rigid exaction of their own rights and privileges, upon those who come before them. I move that the best thanks of this meeting be given to Mr. Shelley for his paper.

Major HARRY BARNES [F.]: I have very great pleasure indeed in rising to second the vote of thanks which has been so very ably proposed by Mr. Hart. Like other members of the Institute, I have had the opportunity of reading this paper in advance, and as I was reading it, some words of Mr. Shelley's illustrious namesake came to my mind :

“ We look before and after,
And pine for what is not.”

I thought there was something of the desire of the moth for a star in this search for a perfect building law. I am naturally interested in the reference to the place from which I am, at the moment, separated. People who visit the House of Commons are often shown a bench which, they are told, is the Front Treasury Bench, upon which a number of gentlemen more or less distinguished are to be seen sprawling in attitudes more or less elegant; and they are assured that that is the seat of government. Everybody who has ever been in the House, and everybody who is there, knows that it is not so; that the real place of government is a little obscure seat tucked away under the gallery, in which, indeed, from time to time, Mr. Shelley has no doubt been found

seated. And I recall many occasions upon which the Front Treasury Bench has been empty except for the presence of a Minister in charge of a Bill of which he knew nothing, who was being badgered by a Member who knew less, and how often has one seen the Minister rise and pursue his way to the obscure seat and inquire of the official as to whether he may, or may not, accede to the request which has been made to him! I think we have got, in this paper, a most excellent summary of the position, and I hesitate very much to make any comments upon it. In reading it through, it occurred to me to wonder whether it might not be possible to make some codification of the Building Law. I hope I shall not be told it has been made, but I fancy it has not been done yet—for among my most interesting recollections in the past year or two has been that of being asked to pass measures—I am thinking specially of the Education Act, and a great Act dealing with the law of property, of some hundreds of pages—between five minutes to 3 and 3 o'clock in the morning. That great codification of the law of property, which, perhaps, was something more than a codification, was the result of very prolonged conferences between the Law Officers of the Crown and people who were interested in that sort of matter. And it seems to me it might be possible to those who are expert in building matters to act in that way with the appropriate Ministers or officials, and thus bring about some codification which would make it easier for an architect to find his way through the general building law. I think, if I may be allowed to say so, that the part of Mr. Shelley's paper in which he discusses the advantages of the Bye-law system develops a very sound argument. I do not think we can estimate too highly the value of experiment and the possibilities of progress that arise out of our present system of bye-laws. No doubt they have many defects, and they present disadvantages, but I agree with Mr. Shelley that those are outweighed by the fact that they allow of this flexibility in dealing with the great art of building. As to the proposal embodied in the paper that the central Authority—by which I suppose Mr. Shelley means his own Department—should be entrusted with more power to make regulations, I am sure that if he puts that in a Bill and presents it to the House of Commons, it will be seized upon as a terrier seizes a rat, because if a Member can only find in a Bill a proposal that more power shall be conferred upon Government Departments, he will oppose that in the Bill if he opposes nothing else; and if a proposal of that sort were launched, it would have to be accompanied by a scheme to associate such officials with some kind of outside tribunal, so that the acts of the official should be controlled by great authorities in building and architecture; in other words, that the subject might have some refuge from the exactions of even so benevolent an official as Mr. Shelley. If something of that sort were done, I think

DISCUSSION

there would be great advantages in strengthening the Central Authority in its general supervision of building bye-laws. And it occurred to me that something else which might be done is this : that it might be possible to refrain from exacting as much detail from duly qualified practitioners as from unqualified people. That opens up a very fruitful line of investigation. I know when I have been depositing plans and have been asked to give the dimensions of every piece of steel and every piece of timber which was shown in the plan, I have thought it was a little bit superfluous, and that while the jerry-builder might be invited to do so, a Fellow of the Royal Institute of British Architects should have been exempt. So, if I may be allowed to associate myself with Mr. Hart, it is with the very greatest pleasure indeed I avail myself of the opportunity which you have given to me of seconding this vote of thanks.

Mr. I. G. GIBBON (Ministry of Health) : I should have much preferred to speak after some of the thunder which I know is at the disposal of the Institute had been delivered. But, if it is your wish, I will speak now. May I suggest that I think it is a very good move indeed to have asked Mr. Shelley to speak. If you want to criticise a Department it is as well you should know exactly what the law is and what the practice of that Department is. That has not always been the case with regard to criticisms in the past.

I shall not go into detail, but, if I may, I will deal with some of the principles which, so far as I can gather, underlie some of the criticisms which are made by members of the Institute and others outside it.

The first is this—a point I know Mr. Shelley would have emphasised if he had had time—that a good deal of the complaints made about bye-laws have no relation to bye-laws : they deal with matters outside the scope of bye-laws. Let me give one instance. I have received complaints with regard to the requirements of Local Authorities, of which Mr. Hart is a representative here, concerning the construction of roads. The Department have been bullied because these requirements have not complied with certain standards. But the bye-laws are concerned with nothing of the kind ; they deal with the width of roads, but not with standards of construction. That is simply one instance ; there are scores of others in which criticisms are levelled at bye-laws on matters with which the bye-laws have nothing whatever to do. And may I say that on the matter of the construction of roads we hope we shall be able to do something, though outside the scope of byelaws ? We are enquiring into the whole subject, with the assistance of the Association of Municipal and County Engineers. Secondly, if I understand the critics aright, they make this complaint : they say that bye-laws require one certain uniform standard ; they say that bye-laws do not make allowance for varying local conditions—which is largely true.

There have been many improvements of late, but the basic principle of the old bye-laws was uniformity, and if any of you are interested in the study of social affairs you will appreciate that the bye-laws are as much an index of the conditions of what is called the industrial revolution as are many other things in society to-day. Your gridiron street, your road which must be of a uniform width—they are on a par with the machine which turns out the same article by hundreds, by thousands, and tens of thousands, whether it be a toy or a Chicago sausage. But that is not an accident. In so far as you are not able to control the surrounding circumstances, so you must of necessity have a certain monotonous uniformity. Let me illustrate that with respect to roads—their width. Complaint is made, as I have said, that bye-laws too often require a certain standard width of road, whatever the circumstances, or whatever use is to be made of the street. But why ? Because, as things are at present, whatever be the immediate use to which that street is to be put, there are no adequate means of securing that the street shall for all time be used for that purpose. Look at any large town at the present day, and what do you find ? You will find that streets which were laid out originally wholly as residential streets, and intended for no purpose except for the use of the houses along it, have now become through thoroughfares, and not only thoroughfares for ordinary traffic, but, as we know so well here in London, they are routes along which pass 'buses and all other pell-mell traffic. So long as that condition of affairs prevails, you cannot expect the elasticity in bye-laws which is essential if we are to secure economical conditions.

But we have been able to do something, even under the existing system of bye-laws. I had hoped we should have been able to do very much more, but the law stands in our way. There may be room for the amendment of the law in this respect. But remember that, as a matter of fact, we have at our disposal now a system under which we can secure the measure of elasticity which we desire. I refer to town-planning, and particularly to that part of it which concerns architects, site-planning. And I suggest that the future of proper elasticity in development rests largely not on the old notion of the bye-law system as we know it now, but upon site-planning. The difference is exactly this : there are certain lowly organisms in the animal kingdom which consist simply of an aggregation of unspecialised cells ; there are other organisms, higher in the scale, which have a brain and special organs ; the bye-law system is the simple organization of cell upon cell, whereas site planning is a system of highly developed organs, with localised functions.

So far as the existing system is concerned, I can assure you that at the Ministry of Health we do not put our bye-laws into a niche and worship them as a

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

god ; we treat them as some negroes treat their gods ; so long as rain comes frequently enough and the earth's fruits appear in due season they come to their gods and offer sacrifices. But if the gods do not produce these things, they are publicly chastised. We chastise our god, too, but by reforming it. We at the Ministry of Health are only too ready to consider any suggestions whatsoever for any modifications which can be advantageously brought about in the present system. We cannot compel Local Authorities to accept the bye-laws which we consider best, but we are bringing to bear increased pressure on Local Authorities to bring their bye-laws up to date. And may I say, in that connection, that your profession, and those allied to it, could help very much indeed by bringing definite pressure to bear on Local Authorities to do this ? We have recently issued a circular, and we are systematically going through the Local Authorities, particularly those who are working under bye-laws ten and twenty years old, and are endeavouring to get them to bring their bye-laws up to date. And we want the backing of public opinion ; and, notwithstanding Major Barnes's reference to official power, don't be misled by his temporary, only temporary, absence from the House of Commons and his attempt to belittle the power of Parliament. Remember that public opinion is the strong, compelling force, and if you will help in the way I suggest, I think you will do a great deal of good. So far as the other matter is concerned, I understand you have now a Committee which is enquiring into the bye-laws, and I can assure you that we are prepared to make any arrangements you may desire by which the views you wish to bring forward shall be fully and freely discussed, and we will do everything we reasonably can to bring the bye-laws up to date.

Mr. FRANCIS HOOPER [F.] : It requires some little courage to follow such accomplished speakers as those who have preceded me, but one is sure there are many in this room who would also wish to thank Mr. Shelley cordially for coming here to expound an official view with regard to Bye-laws, and Building Legislation in general. Most of us have had dealings with Local Authorities and many have served on Councils, and we all have been thankful for the strength of existing bye-laws. Were it not for such bye-laws, our towns and suburbs would be far worse than they are to-day. One speaker only has referred to the Town Planning Act. Architects, as a body, one feels sure, have a keen sense of their responsibilities, that they must educate themselves, the public, and their clients, and this is no easy task. Only last week I saw plans for crowding together a group of small dwellings, and trembled lest they might be passed, but I am thankful to say that the local Council has thrown them out, with the comment that they do not comply with the requirements of the Town Planning Act. In reference to the Town Planning Act, it would

be graceful to recall the work of one of our respected past-presidents, Mr. Leonard Stokes, who in backing up Mr. John Burns during his year of office, assisted in producing that wonderful and memorable exhibition in the rooms of the Royal Academy, which did so much to bring vividly before the public what the then Minister of the Local Government Board had in view, and which must always stand to his credit and honour. The last speaker alluded to the width of roads. Who can find fault with any effort to keep building frontages as far back as economically they may be ? But one would humbly remark that they have so far failed to realise that, when they have the building sufficiently far back, they need not be concerned in making the road for vehicles wide enough to become a racing track. One knows many districts, as I am sure you all do, where the roads are unnecessarily wide ; the front garden or forecourt of the houses unnecessarily cramped, and the footpaths wholly inadequate. Surely it is the firm desire of all who are seeking to house the masses to put them into quiet roads, rather than in roads along which motor vehicles are travelling at the risk of the lives of both old and young. They wish to keep the roads reasonably safe, and with plenty of foot-way for the children, rather than widening the road, which requires sweeping, watering and maintenance at a cost wholly out of proportion to requirements. Can we not also be thankful that there are restrictions with regard to the height of buildings ? We have got some sorry examples, not only in London, but in every town in the country, of buildings out of proportion to their environment. Even in New York, which, a few years ago, was belauded for its wonderful buildings, there is now developing an adverse spirit, and many begin to regret having ever allowed that type of building to be erected. We are being educated, and we have to keep pace with the spirit of the times. One further point on which, perhaps, a word might be opportune. The late Mr. Hare, another Past President, seemed to be almost on the brink of securing a revision of the law of " light and air." We have heard very little on that subject since his lamented death. He was an enthusiast on the subject. May we commend it to our present Council, asking them to try to revive a matter on which the public will back us up, if we can only take the lead ? Our problems to-day are social ; they must also be psychical.

Mr. A. O. COLLARD [F.] : As a member of the Institute Building Code Sub-Committee, I should like to be associated with this vote of thanks to Mr. Shelley. The Institute Sub-Committee had the honour of a visit from Mr. Shelley, who spent over an hour with us on one occasion, and gave us the benefit of his long experience in connection with building bye-laws, and we felt very grateful indeed to him. I am not sure whether, to-night, Mr. S. B. Russell is present, for it was due to him that the Institute was inspired to appoint

DISCUSSION

a sub-committee, to see if anything could be done to create a general and comprehensive code of building for the provinces. I suppose it is divulging no secret to say that the members of the sub-committee found they were up against a tremendous job, and from the beginning some of us felt it was an impossible one. As a matter of fact, what many of us want is a greater uniformity of practice and of bye-law, and with that optimistic wish I believe Mr. Shelley is quite sympathetic, and probably the other gentlemen who have spoken are sympathetic too. I noticed that Mr. Shelley, apparently, is under the impression that some architects—or possibly not architects, but others—are disposed to dispense with the services of the Local Authorities in connection with bye-laws, or at all events with building law. I can say that no one on our Sub-committee had any such idea, and no idea of that sort was obtained on the visit which Mr. Shelley paid to us. We realise that the Local Authorities are the only authorities who can administer the law, and we are willing to submit to them, provided their discretion is indeed limited and these limitations are made perfectly clear. We have all found, on different occasions, much embarrassment in going about the country and in doing work in different parts, and it is very annoying to find that one matter which may be perfectly straightforward in one district is in a quite chaotic state in another, and one is left to the mercy of some official who knows very little about it. Admittedly, public officials, particularly surveyors, are of a better class now than they used to be, but they are not all improved, and I can tell you of a particular case where a man who was formerly road foreman is now surveyor, and a very sedate one he is, too. And he rules; his view, on any bye-law, is the one to which you have to bow when you work in his district. That sort of thing helps to embarrass architects when they are trying to do their best for their clients in different districts. It is true of Acts of Parliament, and, I presume, all regulations, that they are for evil doers. Architects, you may say, will always do the right thing, wherever they go, and it is the evil doers for whom these provisions are framed, and it is on their account we are so often made to suffer in these matters. I want to indicate in one direction—because it follows Mr. Shelley's ideas—the high degree of perfection which was arrived at in the London Building Act of 1894. The London County Council, with real wisdom, decided that they would not plunge London into an Act of Parliament without consulting all the different people who might have strong opinions on the subject, and they, very wisely, sent the draft Bill to all Local Authorities, to all large property owners, to surveyors of large estates, to the Royal Institute, to the Architectural Association, to the Surveyors' Institute, and to many other useful and active bodies; and the end was, that an Act of Parliament was produced without undue friction or opposition, and one

which at that time was highly satisfactory, though it has since had to be altered and adapted to the present day. The Ministry of Health is undoubtedly a very admirable body, although its name is one I am not much in love with, because the name does not indicate its precise duties. We, as architects, are a little afraid of the higher authorities in Whitehall, and in the past we have had reason to be. But this modern spirit which has come upon Whitehall, and which has produced, to our satisfaction, Mr. Shelley in our midst to-night, with the full approval of the Ministry, we may regard as an admirable sign of the times, and we are grateful. But we are still a little fearful of what may happen unless we are told beforehand what is proposed to be done. I noticed, in an evening paper, three nights ago, that the Ministry of Health had insisted on the Corporation of Folkestone building certain houses with gateposts and gates in front; but they made no observation with regard to fences, and so none has been provided. I have no doubt the Ministry are not to blame for that, but we want to be very cautious in regard to the things which are thrust upon us. Acts of Parliament are extraordinary things. If it will not encroach too much upon your time, I should like to relate two instances in regard to Acts of Parliament in London. One was when Charing Cross Railway Bridge was laid out under an Act, and it was provided that there were to be two foot-ways, one on each side. And they were duly provided. But the Act of Parliament said nothing about maintenance of these two foot-ways, so one was very promptly shut off, and the public, ever since, have merely had the one footway, which many of us have often tramped over. The other peculiar case I want to mention is this. Mr. Shelley, in his Paper, said, "Look out for Acts of Parliament." He is quite right. You may have heard when Victoria Station, on the London and Chatham Line, was first laid out, it was said in the Act that it should be roofed over for several yards leading out of the station, to protect adjoining houses from the steam which was produced by the company's engines. That was all right, and it served its purpose. But, as the roof got into decay, the glass was broken, and the steel work became ruinous. They looked at their Act of Parliament, and they found there was no word to the effect that it was to be maintained by the owners, so it was removed. We want much more care in the future, and we architects, if we are permitted, can advise and help the Ministry, and we shall be only too delighted to do so.

Mr. H. D. SEARLES-WOOD [F.] : Might I make one point, which has been before the Institute many times? I do not know whether Mr. Shelley will think it is outside his purview. It is with regard to the amendment of the Act concerning party walls. We find the Party Wall section of the London Building Act so useful in our buildings that we are anxious to extend the same facility all over the country. Everybody knows

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the application of the Act. If we go into the country to do work, we are up against an almost impossible proposition. You cannot touch the party structure without consent, and that is very churlishly given, as a rule, and as a result there are two external walls, instead of one party wall. I should like very much, as an old surveyor, who has been 25 years under these model bye-laws to mention what, I think, is a great point in Mr. Shelley's paper ; and that is, that there should be more association between the surveyor and the architect. Many years ago it was the custom for the private architect to be very austere with the humble individual who is known as the local surveyor, but I had 25 years' experience of it, and when I got plans, my duty was to write to the individual architect, asking him to come round and see me. I then pointed out variations in the bye-laws, and he corrected them before the plans came to the Committee. It made things easier, and therefore I very rarely had any difficulty with the administration of the Act. I am very much struck with Mr. Shelley's remarks about the attitude of the Ministry of Health with regard to interpretation of the bye-laws. In my experience, we used to write up occasionally to the Ministry on the interpretation of a bye-law, and we were invariably met by the remark that the interpretation of the bye-laws was no duty of the Office of Works —you had to go to the Law Courts for that. Mr. Shelley tells us that is not the case now, and I am very glad to hear it. I should like, as a private architect, to bear my testimony to the extraordinary courtesy with which I have always been treated by the officers of the Office of Works and of the Ministry.

Mr. W. R. DAVIDGE [F.] : I would like to add my congratulations to those of the others who have spoken, to Mr. Shelley for making a dry-as-dust subject such an interesting one. He has shown, and convinced us, that bye-laws of some sort are essential. One or two speakers have emphasised weak points ; have pointed out that bye-laws cannot deal with certain things. One point common to buildings and law is that of exemptions. It is absolutely essential if you want to make one law for the whole country that you should not have exemptions. You know the growing number of Government Departments and Railway Companies acting under Parliamentary powers, and if you are acting for the administration of the law you are up against some case which cannot be dealt with. Mr. Shelley mentioned railway companies in his Paper ; I think that must be a mistake, because they always flaunt the bye-laws as much as possible. And not only do railway companies do this, but Government Departments as well. The laws of gravity are universal, and cannot be deviated from with impunity by anybody, whether Government Department or railway company. I certainly think the suggestion that there should be a general code, requiring a building to be

structurally sound and reasonably fireproof, and, I should like to add, reasonably sightly, is a good one.

Building lines are not matters for bye-law, but there should be some general arrangement for dealing with them, both in built-up areas and in open country. At present the law defines and requires a uniform straight line on both sides of the street, and that is not always desirable. Another point which has not been mentioned is the important fact that it is not the architect, as a rule, who falls foul of the bye-laws ; it is a sad truth that it is not the architect who builds the majority of the buildings. Less, I think, than 10 per cent. of the buildings in this country are erected under competent architectural control. That is a serious matter, and the bye-laws are intended to deal with that class of building which is erected under unskilled control. Here again we might take a useful object-lesson from a very large town in the British Empire, which lays down the law that no person shall submit a plan to the Municipal Authority unless he is a competent architect and is registered as an architect. That, I feel sure, is one of the omissions from the bye-laws which might reasonably appear in the Preamble, or as Bye-law No. 1. The other omissions are, that no bye-law in itself can be more than a securer of safety ; it can never effect remedies, and unless the Ministry of Health enlarge their views very much on the interpretation of town planning, we shall be able to do very little in securing building lines. It is very important for members of the Institute to see that the Ministry have such excellent representatives as we have heard this evening ; and there are other representatives who are equally human, as I can testify.

In considering the question of the universal code, it is necessary to get at the rock-bottom of things—to sweep away, as far as possible, the unessentials, and get down to the essentials. The suggestion Mr. Hooper made with regard to the law of ancient lights is not a new one. The first building regulations in this country—in London—provided first of all for party wall provisions. In the building of a party wall, and joint ownership, it was laid down that if the adjoining owner was not rich enough to pay his share he should give up three feet of land, and it should be built on that, and it was further decreed that no building owner should have the right of light claimed against him, but should have free right of lights uninterfered with by ancient lights. We have only to show the Ministry that there are points which we should like included in the bye-laws, that architects are not against bye-laws, but they realise the need for some control, and they suggest that either a preamble or a bye-law should be introduced to bring every building under proper superintendence.

Mr. A. ALBAN H. SCOTT : Mr. President, it is very good of you to invite me here to-night, as I am not a member of your Institute. During the last three years

DISCUSSION

I have had the pleasure of working closely in touch with the Ministry of Health, and it was a great revelation to me to find that they were very human. I have come to this opinion, that it is not the fault of the officials of the Ministry of Health that the bye-laws are so restricted—it is the fault of the building public. About eighteen months ago I laid the following considerations before the Concrete Institute with regard to bye-laws :—

(a) There should be, I think, one Act of Parliament, passed as early as possible, making it compulsory that all existing bye-laws should cease to have effect after twelve months.

(b) During this period of twelve months new bye-laws should be made.

(c) All bye-laws must be revised every ten years.

(d) Definite reasons must be given by local authorities for disapproving any plans submitted. This Act should also provide that the Ministry of Health should issue regulations and rules stating the permissible stress allowed on all materials, and also the super-load to be provided for under certain conditions. The Ministry of Health to work in harmony with the Building Research Board in the preparation of such regulations. These regulations must be revised constantly and kept up to date, so as to make sure that all our latest research work is taken full advantage of.

(e) I also think it important that a clause on the following lines should be included in such an Act :—

"That notwithstanding anything to the contrary in any of the Building Acts, bye-laws or regulations in force, it is permitted for a building owner to construct any building of any form of construction and any material, provided it is proved to the reasonable satisfaction of the local surveyor that the method and the materials proposed are of sufficient strength and the structure is of sufficient stability to perform the work intended. In all cases such work shall be designed on recognised engineering formulae. If there should be a difference of opinion between the building owner and the local council on any point under this rule, such difference shall be referred to a tribunal appointed by the Ministry of Health, and the decision of this tribunal shall be final and binding on all parties."

It must be remembered that the actual bye-laws and regulations do not end in what is in print. I had a case under the recent Housing Acts where we wanted to put up a wooden building, but the surveyor stated : "We have no wooden houses in our district, and if you appeal against us to the Ministry of Health, do not forget you have to live in our district." In certain states in America the Building Code provides that if the manufacturer of any new material submits it to the Building Bureau for testing, the Bureau immediately lays down regulations regarding its use. The suggestions I have put forward would provide for that. There are very few bye-laws existing in England to-day that permit rein-

forced concrete construction, and, generally speaking, where local councils do permit it, they insist upon the London County Council standard.

Mr. HORACE W. CUBITT [A.] : Seeing the Ministry of Health Representatives here, and that they are so ready and willing to consider our views, I think it is perhaps a little unfortunate that, with the exception of two speakers, suggestions made for improvement have not been very precise. Mr. Searles-Wood mentioned party walls, and I am sure, as one who works both in London and the provinces, that we feel very much in the provinces the lack of sensible requirements such as we have in London in regard to party walls. The Institute should take this matter up and press it on the Ministry and try to extend to the provinces what we find so satisfactory in London. With regard to the bye-laws, I do not know whether witnesses before the Departmental Committee suggested a mean course between the two extremes—the old bad system of each Local Authority having to administer its own bye-laws, and the other extreme, which seems beyond practical politics, that of having one general building code for the whole country. I do not know whether anyone suggested that we should have a standard set of bye-laws for a big area administered by different authorities. It seems sensible, and in order to test whether our members think it desirable, I propose to move at a Business meeting, that the Institute take this matter up, with a view to getting a certain codification of bye-laws, so as to make things simpler for all who have to do with buildings. We have the precedent of the Metropolitan Borough Councils. No one would think of having separate drainage bye-laws in each of the Metropolitan districts, and I do not see why we should not, throughout Greater London, have a similar uniform set of bye-laws administered by the existing authorities. There is no reason why a bye-law in Wood Green should not be applicable to Surbiton, or Kingston. It is absurd that there should be different bye-laws, though it is reasonable that a bye-law suitable for Northumberland should not apply in a London district. This is a good time for getting something of that sort through. Perhaps a few years ago you would have said it was absurd to take the railways of the country and place them into four big groups, but the Government said it was desirable, and it has been done. We architects are people to oppose things ; cannot we arouse ourselves in this case to get something done ? At the next Business meeting, therefore, I shall move that the Institute take this matter up with a view to obtaining a codification of bye-laws throughout various areas, starting first with Greater London. We are much obliged to Mr. Shelley for having come here, for he has shown us that the Ministry are willing and anxious to try and make things easier for us, so that building may be made simpler and cheaper for all.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Mr. C. A. DAUBNEY [F.] : As Chairman of the Committee which has been referred to, I should like to add my word of thanks to Mr. Shelley for having come here and explained the view of the Ministry of Health with regard to the administration of bye-laws. Mr. Shelley has put his finger upon the main point of difficulty : I think I am quoting his words correctly as "Where the surveyor is a good man it is clearly to the advantage of the architect; he gets a quick decision, and if there be a dispute, he can discuss it with the man who knows the technique of his subject." Apparently that is the secret of the trouble that has been experienced with the bye-laws. I venture to think that if architects and builders and the general building law in the country are to be governed by bye-laws still, whatever they may be, it would be a magnificent thing if, associated with those bye-laws, there were a stipulation that every local surveyor who has to administer the bye-laws should be compelled to hold the Certificate, which this Institute issues, certifying that he is qualified to carry out his job. I should like to add that the Committee of the Institute referred to was appointed in the early part of 1922 by the Council on the following resolutions agreed to by the Standing Science and Practice Committees.

1. That . . . as the present Building Bye-laws are in themselves opposed to progress in the science of building and are in many cases oppressively administered by the officers of local authorities the Committee take the necessary steps . . . to consider the advisability of establishing a new Building Code which, while it will ensure safe construction, will at the same time confer freedom from onerous and unnecessary restrictions imposed nearly half a century ago and which in a great number of instances remain unaltered.
2. That this matter should not be treated as one of dealing with the amendment of existing Bye-laws which would be a hopeless proceeding but as one of establishing anew a simple code with discretionary powers for the local authorities, and the right of appeal from their decisions.
3. That as under existing Building Bye-laws there is no incentive for manufacturers and inventors to improve on existing methods and materials it is desirable to establish a new Building Code for the encouragement of science in building.

This Committee had the co-operation of members of the Society of Architects and others. Later on it had the pleasure of a visit from Mr. Shelley, when it was very evident that the Ministry of Health would not be likely to support the line suggested by the Resolution. The Committee, therefore, considered it inexpedient to pursue the matter further.

It is still, however, an open question whether it would not be well in the revival of the building industry for a

general code of Building Law to be operative. The practice which has obtained in London at least since the Fire of London should be an example of what direct legislation can accomplish. In spite of its somewhat complicated character no one actively engaged in London work has real cause to find fault with it. General rules of administration are prescribed. Sufficient elasticity is given so that any new methods of construction can be considered. To provide for differences of opinion on technical matters there is the Tribunal of Appeal which is easy of access and speedy in its decisions. The inspection of work in progress is carried out by men who are compelled to possess certificates of qualification for their work. The practical result is seen in the fact that for instance in 1921 while over 60,000 different works were carried out and dealt with in London only a negligible number of these involved serious difference of opinion, and none, I believe, demanded a reference to the Tribunal of Appeal. It seems strange that the experience of London should not be shared by other large cities, and possibly by the country also.

The PRESIDENT : Before I put this vote of thanks, I should like to say one word to Mr. Shelley. The time is limited, and not all the members here who would have wished to speak have been able to do so. It is possible, therefore, we have not exhibited to him the full depth of the effect of his lecture upon us this evening. We have looked forward to it with a great deal of pleasure, and I can assure him it has done a great deal to clear up our future deliberations on this subject, in which we want to be as useful to the community and to architects at large as we can be. He has given us, by coming here to-night, one more interesting proof that the Palaces of Whitehall are not all ogres' castles ; that the inhabitants of those castles now and then come in a friendly way and talk problems over with us in the most human manner ; and I can give his lecture a very high place among those instances of humanity.

Mr. SHELLY (in reply) : The best way in which I can mark my deep appreciation of the kindness with which I have been received to-night, from Mr. Hart's all too flattering words about the share which I had the privilege to take in the work of his Committee down to your concluding remarks, Sir, is by being brief in acknowledging the vote of thanks. At the same time, I should not wish to miss the chance of saying anything I can which is likely to be of use to anybody, and I have made a few notes, which, with your permission, I will run through quickly.

If I may take the speakers in the reverse order, I will deal with Mr. Daubney's remarks first. We should all like to see a state of things in which all building surveyors of Local Authorities held proper professional qualifications ; I do not think there can be any doubt about that. The chief obstacle I see is one of cost. At

DISCUSSION

the present time the House of Commons will shake us "as a terrier shakes a rat," as Major Barnes so aptly said, if we propose anything, or support anything, which savours of increased cost to the taxpayer or the ratepayer. And the point is that if you are to give a man a living wage at all, in some districts, he must do all kinds of work, and sometimes, as Mr. Collard said, an ex-road foreman, or someone of that kind, occupies the post. It is deplorable, but you can only look to the lapse of time and the influence of public opinion, which, after all, is the main feature in raising the status of any profession. And in a matter of this kind obviously it is for the architectural profession to work like leaven on the mind of the public.

With regard to Mr. Cubitt's suggestion about uniform bye-laws throughout adjoining areas, which might combine to secure some of the advantages of centralisation, it was not put quite in that form by any of the witnesses before the Departmental Committee; but I was interested to hear the suggestion, because it is one on which we are working now. One of the standing instructions to the staff of my Department in the Ministry is that in dealing with Local Authorities' proposals they should remember the advantages of getting uniform bye-laws in adjoining areas, and to that end may give way on certain points where they think the Local Authorities are on the fringe of proposing more than seems desirable, just for the sake of securing uniformity throughout a larger area. I have had two cases through my hands in the last fortnight in which that has been suggested. One was a group of industrial and semi-industrial areas in Cheshire where we should have liked to get differentiation according to the character of the districts, but shall agree to uniform bye-laws throughout, because we think the most progressive district will pull the others after it. The other is where the Secretary of the Nottinghamshire District Surveyors' Association has asked for certain information, and we have offered to consider something in the nature of reasonably uniform bye-laws throughout the country, even if it means some sacrifice of what otherwise we think desirable. How far the process can go is a matter of degree.

With regard to Mr. Alban Scott's interesting points, he will find that the first three of them were covered by the recommendations of the Departmental Committee on Building Bye-laws. The fourth was considered at great length, but rejected, for reasons given to the Committee. If I remember aright, the reference is to paragraph 58. Mr. Davidge spoke of exemptions, and the danger of them. There again we have a recommendation of the Departmental Committee that the Government itself should waive the Government exemptions for certain buildings. I do not know that any official can be in a position to say what would be the views of the Government on that. I can conceive there might be

certain difficulties, but the recommendation stands in black and white. Some exemptions you must have, I think. The only practicable way of dealing with a number of small buildings, summer-houses, etc., is not to deal with them at all. There are other exemptions, even in the London Building Act, for buildings of considerable size, not in favour of the Government or of particular bodies, but simply because of the isolation of the building, or its special character. This is quite reasonable. You apply the principle which I mentioned when I said that you do not want the same degree of regulation in an open site as in a closely built site.

The suggestion for exemption, or partial exemption, made by Major Barnes in favour of plans submitted by properly qualified architects is one which naturally appeals to me, as a member of the closest trade union in the country, which has obtained the right of exclusive audience in all the Superior Courts. But Major Barnes knows that that is frequently attacked at the present day, and I am not sure how the public would take it if a similar privilege were proposed for another profession. I do not think that is a matter which the Ministry of Health could very well take up. Perhaps some one in the House of Commons would like to fly a kite to test what view would be taken there.

The railway companies' exemption, referred to by Mr. Davidge, is statutory, and at present is confined to works in connection with the actual railways, at any rate outside London, and also in London if my memory serves me. The point I was trying to make was a different one—namely, that where you get a railway company, as at Crewe or at Swindon, building acres of machine shops, I doubt if any great advantage would accrue to the public from doing over again through the Local Authority's Surveyor the calculations necessary for effective supervision. The railway companies have their own constructional engineers. It is quite true, as Mr. Davidge says, that the laws of gravity are universal, and something will happen if they are ignored, but my suggestion was that the surveyors of many districts are no better able to attend to the laws of gravity than are the engineers and others employed by first-class concerns.

As those who have been good enough to read this paper in advance will know, I left out much of it in the reading, in deference to your feelings as to time and to the plea of a candid friend that I would not make this paper as long as the Departmental Committee's Report. As it has some bearing on what has been said, I will, however, read one portion of what I omitted:

"From the point of view of a practising architect it is a nuisance that modes of construction which are lawful in one place should be forbidden in another. I have tried to suggest to you whether freedom from this nuisance might not be purchased at the cost of greater troubles still if some of the remedies which I have

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

heard suggested were adopted. Some divergence is the price we pay for local government, and the question how far these divergences should go is one of degree. The Bye-laws Committee referred to undue complaisance in the past on the part of the Local Government Board in assenting to differential requirements in the law of building. On the other hand, the complaint is constant that too little scope is allowed for local differences. Substantially I think there is more ground for the first complaint than for the second. Architects and others who have interests in more than one local government area do find that the Board in the past deferred freely to the views of local authorities, and assented to variations from the normal type of bye-law which were not related to real differences of soil or climate or other factors in the locality concerned. I am supported in this by the evidence before the Departmental Committee of local authorities themselves.

"The Committee contemplated that the results would be cured by the steady process of the bringing up to date of bye-laws which they advocated, so that in course of time there would grow up 'a national code of bye-laws,' to use the words of the Leeds City Engineer."

That "steady process" was what I had in mind in regard to increased power for the Central Department to which the Departmental Committee referred; I was not speaking of power to issue an Order having controlling force in regard to the law of building. As I said in another piece I left out, I do not rule that out as a means of dealing with the matter, but too much should not be hoped from it. It might be made to deal with rock-bottom requirements, but you have to get agreement as to what rock-bottom is, and I have not seen any agreement to put as rock-bottom anything more than we have in our rural model, which deals with sanitation only.

Major Barnes spoke of codification of the laws governing building in this country—that is, I take it, of the statute law. I think codification is a dream which everybody in the Local Government Board has dreamed for fifty years, and the time may come when that dream will be true, but the fundamental difficulty is in getting a measure of that kind through Parliament. If you have enough of the driving force of public opinion behind it, you can get it done; but if you have not, the Whips will say, "Let us do something which interests the House more." Even without Major Barnes's codification, we might, no doubt, get a certain number of minor and particular amendments, such as improvement in the law of building lines. Everybody agrees that the present position in regard to building lines is ludicrous; and if the major dream does not come true, I hope to see the minor dream come true which would put building lines into a more rational position. Speaking of this brings me to the distinction, which Mr. Hooper indicated, between building lines and lines for the width of

streets. In our model bye-laws since 1912 we have drawn a clear distinction there; we have laid down a standard width of street, and said that, provided houses are set back to a certain extent, that standard may be reduced. It is not an ideal method, because there are difficulties about making it binding, and you cannot deal directly with the building line; but we have done it to the best of our ability, and that is in force in a number of districts. Later in the same series, bye-laws will be found upon another matter to which Mr. Hooper (I think it was) referred—that is, space about buildings to secure air; but, as the law stands, there is no power to make the bye-laws he desired requiring lighting for buildings. The Committee recommended that the law should be amended in that respect, and that, also, is a minor dream which I hope will come true.

Two more points were raised, by Mr. Searles-Wood and Mr. Cubitt. The question of party walls is a matter of the general law of property rather than of that side of law with which the Ministry are concerned; it is not a matter of local government. In the London Building Act it is dealt with, because that was codifying a large number of previous provisions which went back to the time of Richard I; but, generally, it is a matter for this Institute, in consultation with the Law Society and people of that kind, to urge on the Attorney-General as a general amendment of the Law of Property, rather than a matter to be dealt with by the Ministry of Health. Mr. Searles-Wood reminded the meeting, correctly, that when the Local Government Board were asked to interpret bye-laws, they said: "We have not the power to give authoritative decisions; that can only be done by the Courts." That is still the law, and still the practice. If we were to give an architect who writes to us an opinion (and the same applies if a Local Authority writes to us)—if we gave an opinion *ex parte*, the case might still be taken into Court and it might be that we were wrong. To give an *ex parte* interpretation to either side would be improper. Our opinion might be embarrassing to the Court which had to decide the case; our giving it might be unfair to the other party, and even to the party who sought it. There might be a legitimate grievance, especially if the interpretation landed one of the parties in heavy expense. But what I said in my paper was this (and it has been said on proper occasions for many years past): "If you, the Local Authority, and you, the architect (or you, the private builder), can agree what is the point at issue between you, and wish to put it to us, then, although our decision has not the binding force of a decision in a Court of Law, still, knowing that you, as honourable men, will abide by our decision, as you have undertaken, we will tell you what the position is, for the assistance of both of you." Mr. President, I thank you for the very kind reception you have given me.

Correspondence

THE CODE OF PROFESSIONAL CONDUCT.

11 Stone Buildings,
Lincoln's Inn, W.C.2,
20 December 1922.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—It was announced in the issue of our JOURNAL of November 11 that the record of "The Code of Professional Conduct and Practice" printed of late years in the KALENDAR had been rescinded by the Council. No reasons were given for this act and, as the circumstance has been referred to in the public Press and has raised comment among our members, it was to be expected that some explanation would be offered by the Council or that someone would call attention to the omission.

In the two issues of the JOURNAL that have appeared since the announcement was made I, however, find no reference to the matter. It would be no less than a calamity if a fully detailed explanation of the reasons moving the Council were not published, for the implication is otherwise unavoidable that the Council, on behalf of its members, disapproves of and dissociates itself from the principles set forth in the late record. This can, certainly, not be the case, and I am sure that I am expressing the positive desires of a large number of our members and offending the susceptibilities of none, in asking that the explanation should be made public.—Yours, faithfully,

H. B. CRESWELL [F.]

SIR EDWIN COOPER [F.]

At the General Meeting of the Institute on Monday night, on the motion of the President, a cordial vote of congratulation was passed to Sir Edwin Cooper on the Knighthood which has recently been conferred on him.

Sir Edwin Cooper served his articles in Scarborough. For further experience he was for a short time with Demaine and Brierley, of York, and afterwards with Goldie, Child and Goldie, of London. Returning to Scarborough he joined in partnership the late John Hall—one of his former chiefs—and his fellow-pupil, the late Herbert Davis, as Hall, Cooper and Davis. Their first public success was the Scarborough Technical School, won in open competition with E. R. Robson as assessor. Work soon after developed in the South, and Sir Edwin took up his quarters in London. In 1903 he collaborated with S. B. Russell, and several important public works were successfully carried out, the chief being Hull Guild Hall and Law Courts, Burslem Town Hall, Newcastle Royal Grammar School, and other schools and libraries.

Sir Edwin commenced practice alone in 1910, carrying out much private work, and winning in open competition Marylebone Town Hall in 1911, and the great building for the Port of London Authority in the following year. Several important undertakings are now in hand: The College of Nursing at the rear of No. 2 Cavendish Square, recently remodelled by him to house the Cowdray Club; the School of Bio-Chemistry for the University of Cambridge; the Banque Belge in Bishopsgate, E.C.; business premises in St. Mary Axe for Spiller's Milling and Associated Industries, Ltd.; and the Star and Garter Home at Richmond for the British Red Cross, which was designed by Sir Edwin, and for which he acts in an honorary capacity. When finished it will complete Sir Edwin's services given to the country during the years of the war.

EXHIBITION OF ARCHITECTURE, TOWN PLANNING, AND COMPLEMENTARY ARTS.

The Council of the Institute have approved in principle and referred to the Art Standing Committee for constructive consideration a proposal for the holding of an exhibition of architecture, town planning, and the following complementary arts:—

1. Mural decorative painting.
2. Sculpture and ornamental carving and casting.
3. (a) Furniture and woodwork;
- (b) Tapestries, weaving, and decorative hangings;
- (c) Pottery and ceramics;
- (d) Metal work;
- (e) Household utensils and appliances.

BIRMINGHAM SCHOOL OF ARCHITECTURE.

NEW DIRECTOR.

Mr. George Drysdale, of Messrs. Stokes, Drysdale and Aylwin, has been appointed Director of Architecture at the Central School of Arts and Crafts, Birmingham. This will entail Mr. Drysdale's being in Birmingham on two days each week.

MR. ALFRED COX [F.]

Mr. Alfred Cox, Fellow, of the firm of Messrs. Williams and Cox, of 34 Henrietta Street, Covent Garden, writes to say that some confusion has arisen through the announcement in the JOURNAL of 9 December, page 92, that Mr. Alfred Arthur Cox had ceased to be a Fellow of the Institute. The similarity of the two names has made such a mistake possible, but it is hoped that, having been pointed out, it may not occur again.

REINSTATED MEMBER.

Mr. Harold Burleigh has been reinstated as an Associate.

Notice

SPECIAL GENERAL MEETING

REGISTRATION.

A Special General Meeting will be held on *Monday, 29 January 1923*, at 5 p.m., for the purpose of considering the following Draft Bill for the Registration of Architects, which has been prepared by the Registration Committee and approved by the Council.

ARCHITECTS (REGISTRATION).

ARRANGEMENT OF SECTIONS.

	SECTION		SECTION
Preamble.		Seeking registration by false representation ..	12
Short title	1	Prohibiting partnership between registered and unregistered persons	13
Interpretation	2	Use of name "Architect," etc.	14
Unregistered persons not to practise	2a	Certain certificates not to be given by unregistered persons	15
Constitution of the Board	3	Unregistered persons not to recover charges	16
Council may hold examinations	3a	Fees under Act not to exceed expenses of execution thereof	17
Appointment of Registrar and officers	4	Further powers as to bye-laws	18
Council to keep register	5	Service of notices by post	19
Persons entitled to registration	6	Surveyors and Civil Engineers	20
Registration	7	Act not to apply to Naval Architects	21
As to the Tribunal	8	Act to apply to England, Wales and Scotland	22
Removal of names from register	9		
Amendment, etc., of entries in register	10		
Register to be published	11		

A BILL

TO PROVIDE FOR THE REGISTRATION OF AND TO REGULATE THE QUALIFICATIONS OF ARCHITECTS.

WHEREAS it is expedient that persons requiring professional aid in Architecture should be enabled to distinguish qualified from unqualified practitioners; and whereas Architecture is of public importance, and it is in the public interest to prevent untrained and incompetent persons, styling themselves Architects, from imposing upon the community to its material loss and detriment,

BE THEREFORE ENACTED and be it Enacted by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows (that is to say):—

Short Title.

1. This Act may be cited as the Architects (Registration) Act, 1923.

Interpretation.

2. In this Act unless the context otherwise requires the following expressions shall have the meanings assigned to them (that is to say):—

“The Institute” means the Royal Institute of British Architects.

“The Council” means the Council of the Institute or any Committee of the Council appointed by the

Council for the purpose of exercising the powers of the Council under this Act.

“The Board” means the list of persons referred to in Clause 3.

“The Tribunal” means the Tribunal to be constituted as provided by this Act.

“The Royal Charter” means the Royal Charter or Letters Patent of His late Majesty King William the Fourth, and of Her late Majesty Queen Victoria by which the Institute was incorporated and the supplemental Charter of His late Majesty King Edward the Seventh of 1909.

“The Allied Societies” mean those Societies allied to the Institute in accordance with the Bye-Laws.

NOTICE OF MEETING

Unregistered Persons not to Practise.

2a. Except as stated in Section 5 (1), no person shall practise * as an Architect in Great Britain under the style of "Architect" or under any style containing the words "Architect," "Architecture," or "Architectural" unless he is a Registered Architect under the provisions of this Act. Companies shall not be permitted to practise unless all their members are registered Architects.

Constitution of the Board.

3. The Board which shall be appointed immediately after the passing of this Act shall consist of the following (that is to say) :—

A person nominated by the Privy Council.

" " " Board of Trade.

" " " Board of Education.

The President and fourteen members of the Council nominated from time to time by the Council of the Institute.

The President and two members of the Council of the Society of Architects being Architects nominated by the President of that Council.

The President or a member of the Council of the Incorporation of Architects in Scotland being an Architect nominated by the President of that Council.

Eight persons being Architects nominated by a Conference of Presidents of the Allied Societies of the Institute.

A person being an Architect nominated by the President of the Architectural Association of London.

A person being an Architect nominated by the President of the Royal Academy.

Ten members of the Board of Architectural Education of the Royal Institute of British Architects, nominated by the Board of Architectural Education.

A person nominated in rotation by the Governing Body of each University in the United Kingdom possessing a Recognised School of Architecture, the order of rotation being based upon the date of the foundation of such School and subsequently by such machinery as the Board shall set up. The total number not to exceed five.

The appointments to be made annually, members to be eligible for re-election.

Where the word Architect occurs in this Clause it shall mean a practising Architect.

Council may hold Examinations.

3a. After considering the advice of the Board mentioned in Section 3 of this Act and also subject to the provisions of this Act the Council shall from time to time fix the qualifications for and hold examinations for the purpose of enabling persons to qualify for registration under this Act and the Council may subject as aforesaid fix and take such fees as the Council shall consider to be reasonable for candidates for any such examination and such annual registration fees as the Council shall consider to be reason-

* Parliamentary draftsmen to be asked whether the word "practise" is sufficiently comprehensive.

able and the Council may provide that such degrees or diplomas of Corporations or bodies (other than the Institute) as the Council may by regulations determine shall subject to such regulations be wholly or in part a qualification for registration under this Act.

Appointment of Registrar and Officers.

4. The Council shall at a meeting to be held within three months after the passing of this Act appoint a Registrar and the Council shall also from time to time appoint such clerks and servants as shall be necessary for the purpose of this Act and may assign to such Registrar and clerks and servants such duties as the Council shall consider desirable for the purposes of this Act (including duties in relation to the Tribunal) and every person so appointed shall be removable at the pleasure of the Council and shall be paid by and receive from the Council such salary emoluments and benefits as the Council shall think fit.

Council to keep Register.

5. It shall be the duty of the Council to keep a register to be called "The Register of Architects" and to cause to be entered therein the name and address together with such other professional qualifications or particulars as the Council may require of every person whom this Act shall declare is to be registered therein or who shall be entitled to be registered therein under the provisions of this Act and to cause to be erased therefrom the names of all registered persons who shall have died or any names which the Council may in accordance with the provisions of this Act decide should be erased therefrom and from time to time to cause any necessary alterations to be made therein of the addresses or qualifications of the persons registered therein under this Act. Application for registration shall be renewed annually to enable the register to be correctly kept.

Persons Entitled to Registration.

(1) The following persons being British subjects shall subject to the approval of the Tribunal or, when it ceases to exist, of the Council be entitled to be registered in the register (that is to say) :—

(A) All persons who are in "bona fide" practice as Architects at the time of the passing of this Act, or who have been in "bona fide" practice at any time within five years previous to the passing of this Act.

(B) All persons who have been "bona fide" architectural assistants for a period of five years previous to the passing of this Act.

(C) Every person who shall within three years from the passing of this Act apply to the Council to be registered and who shall satisfy the Tribunal that for the period of five years next before the passing thereof and thence up to the time of his applying to be registered he has (except during such time (if any) as he may have been serving in the Forces of the Crown or engaged on national service) either been continuously (providing he satisfies the Tribunal) :—

(i) In part in practice on his own account as an Architect and in other part in a responsible position

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

as a "bona fide" architectural assistant to an architect; or

(ii) In a responsible position as a "bona fide" architect's assistant to an architect.

(D) Subject to the intentions of this Act every person being a British subject who may hereafter be declared by the Tribunal, or, when it ceases to exist, by the Council to be entitled to be registered in the register.

(2) Subject to the provisions of this Act the Council shall forthwith cause to be entered in the register the name regular business address and qualifications or principal qualification or qualifications of every person who is a corporate Member or Licentiate or who shall hereafter become a corporate Member of the Institute or who is entitled to be registered therein under the provisions of this Act or who shall be hereafter declared by the Council to be entitled to be registered in the register.

Registration.

6. (1) Any person (other than a corporate Member or Licentiate of the Institute) who is entitled to be and who seeks to be registered under this Act shall give to the Council all such information as to his name regular business address, character and qualifications which the Council may require for entry in the register, and shall before he is registered (unless he be a person having paid fees on admission as a corporate Member of the Institute) pay to the Council such annual or other fee as the Council may from time to time determine to be reasonable.

(2) Any person being in the register shall notify the Council of any change in the regular business address of such person as appearing in the register.

As to the Tribunal.

7. (1) For the purpose of dealing with applications for registration under this Act by any of the persons specified in Section 5 of this Act there shall be a Tribunal which shall have power to reject any application consisting of the following (that is to say):—

A person nominated by the Privy Council

A person nominated by the Board of Trade.

A person nominated by the Board of Education.

The President and ten Members of the Council nominated from time to time by the Council of the Institute.

Four members of the Board of Architectural Education of the Institute nominated by the Council of the Institute.

The President and two Members of the Council of the Society of Architects nominated by the President of that Society, the persons to be Architects.

The President or a Member of the Council of the Incorporation of Architects in Scotland nominated by the President of that Corporation, the person to be an Architect.

Four persons being Architects nominated by a conference of Presidents of the Allied Societies.

Where the word Architect occurs in the above Clause it shall mean a practising Architect.

(2) For the purpose only of hearing any application for registration by a member of a society or association of architects existing at the passing of this Act and not being any Institution herein before in this section mentioned the President of or a person nominated by the President of such society or association being an architect shall be an additional and temporary member of the Tribunal.

(3) The Council shall within two months after the passing of this Act request the Privy Council, the Board of Trade, the Board of Education, the Presidents of the Society of Architects, the Incorporation of Architects in Scotland and a Conference of Presidents of the Allied Societies to appoint the members of the Tribunal whom they are entitled to appoint under this Act and the Council shall from time to time as occasion may require cause the President of any other society or association of architects who may be entitled to act as or to appoint a member of the Tribunal for the consideration of any particular application to be requested to so act or to appoint and the Council shall take any other steps which they may consider desirable to secure the formation of the Tribunal as soon as may be after the passing of this Act.

(4) It shall be the duty of the Council to summon the members of the Tribunal as occasion may require and to refer to them all applications for registration under paragraphs (B) and (C) of Sub-section (1) of the Section 5 of this Act.

The Council shall cause any entries to be made in the register which may be necessary to give effect to any decisions of the Tribunal or any such application.

(5) The Tribunal shall charge such fees as may be necessary to cover the expense of its work [see Section 17].

(6) Any member of the Tribunal may be removed therefrom by the body or person appointing such member thereon and any such body or person may appoint another member of the Tribunal in the place of any member appointed by them or him who may die, resign or cease from any other cause to be a member of the Tribunal.

(7) Eight members of the Tribunal shall constitute a quorum and may act notwithstanding any neglect or failure to appoint any other member or members of or any vacancy on the Tribunal and the decision of the Tribunal on any application referred to them under this Act shall be final and conclusive and that notwithstanding any informality or defect in the appointment of any of the members of the Tribunal.

(8) The Tribunal may regulate their own procedure and proper records shall be kept of the proceedings of the Tribunal.

(8a) Four years after the passing of this Act the Tribunal shall be wound up and its powers cease.

Removal of Names from Register.

8. The Council shall not permit the name of any person who has been convicted of felony to be entered in the register and shall cause to be struck off the register the name of any registered person who shall be convicted of felony * and the Council may refuse to allow the registr-

* The Parliamentary draftsman to advise on the inclusion of "misdemeanour"

NOTICE OF MEETING

tion of any person or may cause to be struck off the register the name of any registered person who shall after due enquiry be judged by the Council to have been guilty of grave professional misconduct. The Council may also cause to be removed from the register the name of any person who has been declared by a competent Court to be a lunatic.

9. The Council shall have power to suspend any person from the register for any stated time or to reinstate any person who has been removed from the register.

Amendment, etc., of Entries in Register.

10. If it shall be proved to the satisfaction of the Council that any entry in the register has been incorrectly or fraudulently made the Council may cause the same to be amended or erased from the register.

Register to be Published.

11. The Council shall in every year cause to be printed, published for sale and sold under the direction of the Council a correct copy of the register setting forth the names of the persons registered therein in alphabetical order according to the surnames with their respective regular business addresses and any copy of such register certified by order of the Council by the Registrar or by some other officer of the Council duly authorised in that behalf to be a correct copy shall be *prima facie* evidence that any person named therein is registered according to the provisions of this Act and the absence of the name of any person from such copy shall be evidence until the contrary be made to appear that such person is not registered under this Act.

Seeking Registration by False Representation.

12. If any person shall wilfully procure or attempt to procure himself to be registered under this Act by making or producing or causing to be made or produced any false or fraudulent representation or declaration either verbally or in writing the person so offending and every person aiding or assisting him therein shall be liable on summary conviction thereof to a penalty not exceeding fifty pounds, and to be liable to be struck off the register.

Prohibiting Partnership between Registered and Unregistered Persons.

13. After the expiration of one year from the passing of this Act no person who is registered thereunder shall practise as an Architect under the style of an Architect or under any style containing the words "Architect," "Architecture," or "Architectural" in partnership or association with or as an employé of any person who is not so registered, but this clause shall not apply to any registered architect who is or may be in partnership with any person or persons following the profession of Surveyor or Engineer who is a member of The Surveyors' Institution, the Institution of Civil Engineers, and is not engaged in Trade and who is approved by the Board.

Use of Name "Architect" or "Architectural."

14. From and after the expiration of three years from the passing of this Act any unregistered person or persons, associations, or companies, who shall wilfully practise as an

Architect under the style of "Architect" or under any style containing the words "Architect," "Architecture," or "Architectural" shall be liable on summary conviction for each offence to a penalty not exceeding fifty pounds for a first offence and one hundred pounds for any subsequent offence.

Certain Certificates not to be Given by Unregistered Persons.

15. After the expiration of three years from the passing of this Act no certificate required to be given by an Architect in his professional capacity shall be valid unless the person giving the same is registered under this Act.

Unregistered Persons not to Recover Charges.

16. After the expiration of three years from the passing of this Act no person shall be entitled to recover any charge in any Court of Law for any professional services rendered as an architect unless he is registered under this Act.

Fees Under Act not to Exceed Expenses of Execution Thereof.

17. The fees or charges charged and taken in respect of examinations held under this Act and in respect of entries on the register thereunder and the sale of copies of the register shall as far as possible be not more than are sufficient to meet the expenses of the Council in the execution of this Act.

Further Powers as to Bye-laws.

18. The powers conferred upon the Institute by the Charters to make bye-laws and regulations shall be deemed to enable the Institute to make bye-laws and regulations for the better carrying out or for facilitating the purposes of this Act.

Service of Notices by Post.

19. Subject to the other provisions of this Act any notice or document required by or for the purposes of this Act shall be sent by post and in proving such sending it shall be sufficient to prove that the letter containing the notice or document was prepaid and properly addressed and put in the post and when sent to a person registered under this Act shall be deemed to be properly addressed if addressed to him according to his address in the register.

Surveyors and Civil Engineers.

20. Nothing in this Act shall be construed as prohibiting any person for the time being a professional member of the Surveyors' Institution or the Institution of Civil Engineers from performing any function or exercising any power which if this Act had not been passed he might lawfully have performed or exercised as a Surveyor or an Engineer (as the case may be).

Naval Architects.

21. This Act shall not apply to Naval Architects.

Act to Apply to England, Wales and Scotland.

22. This Act shall apply to England, Wales and Scotland.

Obituary

PHILIP HENRY TREE [F.]

By the quiet passing of Philip Tree the Institute has lost a member who lived for and loved his art, and who, in a practice all too small to do full justice to his capacities, left the impress of his artistic mind on all he did.

His early training and experience were gained some sixty years ago in the offices of Mr. Thomas Elworthy, of St. Leonards-on-Sea, and it was in Sussex and the adjoining counties that his work mostly lay. One of his early successes was in the competition for laying out the Bournemouth Gardens, when he gained the first premium. Fate, however, always a close companion, decreed that he should not reap the reward of his merits, the work being carried out without his assistance. A few of his country houses were from time to time exhibited at the Royal Academy, among which were the Highlands Gardens, St. Leonards-on-Sea.

He was for many years a member of the Sussex Archaeological Society, and later of the London Society and one of his chief delights was to ramble with a friend through the countryside seeking little-known examples of old work. His interest in modern architecture was equally great, and he would wander far to see recently erected buildings.

A slight chill contracted during a period of overwork brought a speedy and peaceful end on 5 December and on the 9th a few of his more intimate friends and colleagues gathered at St. Martin's-in-the-Fields to pay their tribute of love.

ARTHUR CROW.

Mr. H. Austen Hall also referred to Mr. Tree's death in the last issue of the JOURNAL, p. 119.

Competitions

INTERNATIONAL LABOUR OFFICE COMPETITION, GENEVA.

The President of the Royal Institute of British Architects has nominated Mr. Edward P. Warren, F.S.A. [F.] as the British member of the Jury in connection with the above Competition.

TUNBRIDGE WELLS PAVILION.

The President of the Royal Institute of British Architects has nominated Mr. E. Guy Dawber, F.S.A., [F.], as Assessor in the above Competition.

THE ARCHITECT AND THE ENGINEER.

A Paper on "The Relations between the Architect and the Engineer" will be read by Mr. W. J. H. Leverton at the Institution of Structural Engineers (296 Vauxhall Bridge Road), on Thursday, 25 January 1923, at 7.30. Members of the R.I.B.A. are invited to be present.

Legal

CLAIM FOR FEES.

In the King's Bench Division on November 16 Mr. Justice Bailhache heard an action brought by Mr. Robert John Thomson, architect, of Hill Road, Wimbledon, against Gwynnes Engineering Co., Ltd., and Gwynnes Ltd., in which the plaintiff sought to recover £665 in respect of fees for work done.

Mr. Lewis Thomas, K.C., and Mr. K. Preedy appeared for the plaintiff. Mr. A. Baker represented the first defendants and Mr. Croom Johnson the second defendants.

Mr. Thomas said the plaintiff was a well-known architect and F.R.I.B.A., and had had considerable experience in industrial construction. On 11 February, 1920, Gwynnes, Ltd., approached him and an interview took place, when instructions were given to him to do certain work upon a site they had acquired at Hammersmith for a motor-car factory. The plaintiff did certain work and had no notification of any change in the company. October came and the defendants said they were not going on with the work. The plaintiff sent in a modified list of his fees and the defendants sent a cheque for 100 guineas in full discharge of his services. Plaintiff accepted it on account, but his claim was altogether for £770 and he now sought to recover the balance of £665. This, Counsel understood, was scarcely a quarter of what the plaintiff would have been entitled to under the scale of the Institute.

His Lordship : Why will not the defendants pay ?

Mr. Thomas : One defendant tries to push it on to the other. The second company, he thought, had sold its assets to the first.

Mr. Croom Johnson said the issue would be whether at an interview on 3 March his clients gave instructions that the plaintiff should then and there prepare plans for the complete scheme or whether they gave instructions that he should prepare plans for a £30,000 scheme. The question was how much Gwynnes, Ltd., had to pay, having regard to the instructions given and whether the charges were reasonable.

Mr. Thomson, giving evidence, said he had an interview on 17 February with Mr. Cannell, the defendants' general manager, when the latter told him what was proposed and witness visited the site at Hammersmith. On 3 March he called on Mr. Cannell, who told him they would not be able to spend so large a sum at once as the amount they had proposed and they would have to do it in sections, and he mentioned that £30,000 would be the utmost they could spend at the time. After the discussion witness was told to prepare the whole scheme, a portion of which could be carried out at a small cost and the rest as they were in a position to do it. He prepared a scheme for the whole site and submitted plans to Mr. Cannell. The latter gave a general approval and left the matter for witness to proceed with. He also got out drainage plans and saw the borough surveyor upon them. Afterwards Mr. Cannell said it was decided to go on with a single-storey building and at his instructions witness got out drawings, specifications and quantities for the building. He also entered into the necessary arrangements with the adjoining building owners and submitted the plans to the London County Council

THE EXAMINATIONS

and obtained their consent. Later, the defendants informed him they had decided not to go on at all.

Mr. Thomas : Are your charges scale charges or not ?—Below.

Cross-examined by Mr. Croom Johnson, witness said he did not think the cost was mentioned at the interview on 17 February. He did not remember Mr. Cannell saying they had made a rough estimate of the cubical content of the buildings they proposed to put up and the cost was to be roughly £30,000.

Counsel : I suggest you went away to look at it in the light of a little sketch plan ?—Yes.

At the interview on 3 March I suggest there was a discussion between you and Mr. Cannell as to what could be done for not exceeding £30,000 ?—Yes.

And that nothing was decided as to going forward with any scheme either for £30,000 or for the other figure, £94,000 ?—Yes. The factory was to occupy the whole site and I was to get out the complete scheme.

Mr. Cannell gave you no instructions to prepare any drawings for anything more than a £30,000 building ?—No.

He also told you the maximum he proposed to spend then was £10,000 to £15,000 ?—I have no recollection of it.

Your fees are worked out having regard to the scheme for which you prepared the plans ?—Yes.

Did you tell Mr. Cannell on 19 March, 1920, that the sketch design you produced then would involve the company in an expenditure of £100,000 ?—No. Mr. Cannell had previously given me to understand that if the scheme was larger than they could afford they would go on with a section of it which would not cost more than £30,000.

You know Gwynnes, Ltd., have admitted throughout that they gave you instructions to do what was necessary to place orders for the steelwork and that they are liable to you for that ?—Yes.

Did you ever prepare detailed working drawings of the £94,000 scheme ?—No.

Did you for the small building—the stores building ?—Yes.

As far as the main building was concerned we never got out of the very early stages ?—Yes. I designed the building.

That is a very early stage ?—It is the first stage.

You know none of these buildings were ever put up and nothing further was done ?—Yes.

Did you know from October, 1920, onwards that the buildings were not going to be proceeded with ?—I concluded it.

The Judge asked Mr. Croom Johnson with whom he said the contract was made. Counsel replied that it was Gwynnes, Ltd., the other company not having been formed.

Plaintiff, further cross-examined, said he and his assistants were working on this scheme from 3 March until the plans were deposited with the L.C.C. at the end of May.

Mr. Douglas Scott, architect and surveyor, of Bedford Row, London, member and secretary of the Practice Committee of the Royal Institute of British Architects, said he had seen the plans, etc., prepared by the plaintiff and the latter would have been entitled to charge £2,015 according to the scale.

Mr. William Cannell, giving evidence for the defence, said he was general manager of Gwynnes, Ltd. He always made it clear to Mr. Thomson that his company never intended to put up a building costing £96,000. What they had in their minds was a sketch plan showing what the cost would be. Then, when they found the cost of what was proposed would be £30,000 that was an end of it and all the defendants thought about afterwards was a small stores building. He never gave Mr. Thomson instructions to go to the L.C.C. except in the early stages for the purpose of getting information.

The hearing was adjourned and resumed on Friday.

His Lordship then conferred privately with Counsel on both sides, as a result of which Mr. Croom Johnson, for Gwynnes, Ltd., said his clients never had any desire to do anything that was not quite fair and equitable and in view of the opinion of his lordship had formed he (Counsel) would not wish to resist it.

His Lordship said that was a very satisfactory conclusion to a dispute between two perfectly honourable gentlemen and he thought there had undoubtedly been a misunderstanding upon one side or the other. He would give judgment for the plaintiff against Gwynnes, Ltd., for £750, less the £105 paid on account—£645—with costs.

This report is published at the request of the Practice Standing Committee for the information of Members of the Institute.

Examinations

FINAL EXAMINATIONS.

ALTERNATIVE PROBLEMS IN DESIGN.

Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the Student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the Student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be of a clear scholarly, and unaffected character.

Subject LXVII.

(a) A COVERED WAY BETWEEN TWO GOVERNMENT BUILDINGS. This covered way connects the first floors of two Government office buildings and spans a semi-private roadway which separates these buildings.

Its face would be set back 15-20 feet from the line of the main façades of these buildings which are of the same architectural character. The covered way will provide a corridor with an internal width of 8 feet.

The distance between buildings is 50 feet. A pavement for foot passengers must be left on each side of the roadway.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The height from pavement level to first floor level of the buildings is 18 feet.

Drawings : $\frac{1}{4}$ -inch scale. Half-plan at corridor level. Half-plan at ground-floor level. Elevation and cross section.

(b) Working drawings including $\frac{1}{2}$ -inch scale section and elevation of ANY PREVIOUSLY APPROVED DESIGN; the approved design to be submitted together with the new working drawings.

Subject LXVIII.

(a) Design for a SEASIDE HOUSE WITH GARAGE. The area of land to be covered by buildings not to exceed 1,500 feet super. The accommodation to be provided on two floors.

Drawings : Two plans, four elevations and one section to $\frac{1}{8}$ -inch scale.

(b) Working drawings, including $\frac{1}{2}$ -inch scale section and elevation of ANY PREVIOUSLY APPROVED DESIGN; the approved design to be submitted together with the new working drawings.

Subject LXIX.

(a) DESIGN FOR A SCHOOL LIBRARY. The Library is to be a double cube, measuring 55 feet by 27 feet 6 inches by 27 feet 6 inches. It is connected to the other school buildings by a covered way or cloister. One entrance will be from the cloister, and another from the playing fields. The arrangements of the book-cases are to be shown. A gallery, with convenient access thereto, is to run right round the room.

Drawings : Two plans, two elevations, and two sections to $\frac{1}{8}$ -inch scale.

(b) Working drawings to $\frac{1}{2}$ -inch scale of design Subject No. LXVII (a) (A COVERED WAY BETWEEN TWO GOVERNMENT BUILDINGS), if this design has been approved. The design to be submitted together with the new working drawings.

Subject LXX.

(a) AN ARCHITECTURAL TREATMENT AT THE HEAD OF A LAKE. A large piece of ornamental water forming a lake, such as the Serpentine in Hyde Park, is supplied with water from a source situated at one end of the lake.

It is desired to treat a portion of the ground adjoining the lake's edge in a decorative manner, to include some feature symbolising the supply of water to the lake.

The area available is 100 feet by 200 feet, 200 feet being the frontage to the lake.

Drawings : Plan at $\frac{1}{2}$ -inch. Main architectural features at $\frac{1}{8}$ -inch. Details at $\frac{1}{2}$ -inch.

(b) Working drawings of Design No. LXVIII (a) (SEASIDE HOUSE), provided that the design has been approved.

The drawings submitted under (a) to be submitted together with a new ground-floor plan showing drains, one section and one elevation all to $\frac{1}{2}$ -inch scale.

Subject LXXI.

(a) A CEMETERY CHAPEL to seat 60 people.

Provide for ample porch, easy access for carriages, small vestries, and bell.

Drawings : $\frac{1}{8}$ -inch scale. Ground plan, east, west and south elevations, longitudinal and cross sections.

(b) Working drawings of Design Subject No. LXIX (A SCHOOL LIBRARY). The design for the School Library may, after it has been approved, be re-submitted with the addition of one $\frac{1}{2}$ -inch scale elevation and two $\frac{1}{2}$ -inch scales finished as working drawings.

The section to show the book-case fittings.

Subject LXXII.

(a) TEA HOUSE IN A PUBLIC PARK, consisting of a tea-room with open loggia on three or four sides, kitchen, offices, and retiring rooms for both sexes. The tea-room and loggia together accommodate 250 people at small tables.

The arrangement of the kitchen equipment is to be shown on the plan. Only light refreshments are to be served. Gas, water and electricity are laid on. Provisions should be made for the washing and storage of crockery, glass, etc.

Drawings : $\frac{1}{2}$ -inch scale. Ground plan, roof plan, one elevation, one section.

(b) Working drawings for Design No. LXX (a) (AN ARCHITECTURAL TREATMENT AT THE HEAD OF A LAKE), provided the design has been approved. The working drawings are to be to $\frac{1}{2}$ -inch scale, and are to be submitted together with the approved design.

Dates for Submission of Designs in 1923.

Subj. LXVII. . .	28th Feb.	Subj. LXVIII. . .	30th Apr.
"	LXIX. . .	30th June	" LXX. . . 31st Aug.
"	LXXI. . .	31st Oct.	" LXXII. . . 31st Dec.

THE SPECIAL WAR EXAMINATION.

The Special War Examination (for students whose studies had been interrupted by the war) was held in London, Liverpool and Leeds, from 11 to 14 December 1922. Of the 197 candidates admitted, 41 passed, and 156 failed to satisfy the examiners.

The successful candidates are as follows :—

BARTON : FRANCIS JAMES, 3 Sunnyhill, Bruton, Somerset.
BENNETT : FRANK EDGAR, 32 Bedford Place, W.C.1.
BLACK : KENNETH EASTBY, 61 Hornsey Lane, Highgate, N.6.
BLAIN : ROBERT, 144 St. Vincent Street, Glasgow.
BRADFORD : STANLEY VICTOR, M.C., 43 Endymion Road, Brixton Hill, S.W.2.
BRIDGWATER : DERRICK LAWLEY, 62 Lightwoods Hill, Warley Woods, Birmingham.
BRIGGS : RICHARD WARD, "Rothsay," Wilbraham Road, Alexandra Park, Manchester.
BUTTON : CHESTER, 137 Beccles Road, Lowestoft.
CLARK : HENRY STANLEY, 27 Wolverton Road, Stanmore, Middlesex.
C LIST : HUBERT ARTHUR, M.C., The Architectural Association, Bedford Square, W.C.1.
CROMBIE : ALAN, Easington Lodge, Hadleigh Road, Ipswich, Suffolk.
GODWIN : WILLIAM JEAN THEODORE, Golf Links Cottage, Pennsylvania, Exeter, Devon.
HAILE : WILFRED LETHABY, 7 Southfield Road, Cotham, Bristol.
HIGGINSON : FRANK, c/o Imperial War Graves Commission, Longuenesse, St. Omer, Pas-de-Calais, France.
HOWARD : GEORGE GERARD, 12 Rockdove Gardens, Tollcross, Glasgow.
HUNT : SPENCER GREY WAKELEY, 20 Christchurch Avenue, Brondesbury, N.W.6.
JONES : IEUAN ROLAND, Arwell, Sylva Gardens South, Craig-y-don, Llandudno.
KING : WILLIAM, 8 Moss Road, Winnington, Northwich, Cheshire.
LINDLEY : CECIL JAMES WILLIAM, "Eridge," Gratwick Road, Worthing, Sussex.
MCKAY : JOHN SIRBALD, 72 George Street, Perth, Scotland.
MARSHALL : FRANCIS WILLIAM, 188 Reddings Lane, Hall Green, nr. Birmingham.
MEE : CLIFFORD EDMUND, 19 Lamourne Road, Seven Kings, Essex.
MORTON : HUBERT CONRAD, c/o Architectural Association, 35 Bedford Square, W.C.1.
NORCLIFFE : ARTHUR JAMES, 13 Devondale Road, Mossley Hill, Liverpool.
NUNN : JOHN PRICE, 91 Camp Street, Broughton, Manchester.
PAXTON : NORVAL ROWALLAN, M.C., 12 Spring Road, Headingley, Leeds.

ELECTION OF MEMBERS

PICTOR : ARTHUR ROBERT DALZEL, Bruton, Somerset.
POPE : FRANK KENNERELL, Bleadon, nr. Weston-super-Mare.
RADFORD : THEODORE REGINALD, " Millford," Littleham, nr. Exmouth.
ROBERTS : CHARLES HENRY, 40A Marlborough Hill, St. John's Wood, N.W.
SIMMS : HERBERT GEORGE, 33 Victoria Road, N.W.1.
SIMPSON : SIDNEY, 35 Bedford Square, W.C.1.
SMITH : IRWIN GEORGE, The Pantiles, Sudbury, Middlesex.
STFRRETT : JOHN EDWIN, 21 Kenilworth Avenue, Walthamstow E.17.
STOTT : THOMAS, 16 Marquess Road, Canonbury, N.1.
SYMCOX : EDGAR JOHN, Lime Walk, Littleover, Derby.
WARR : BERNARD GEOFFREY, 15 Beach Road, Sparkhill, Birmingham.
WEBBER : ERNEST BERRY, 8 New Square, Lincoln's Inn, W.C.2.
WILLIAMS : JOHN CARLTON, 50 Dovey Road, Moseley, Birmingham.
WORT : WILLIAM SIDNEY, 4 All Saints' Place, Stamford, Lincs.
WRIGHT : ALEC THOMAS, 41 Havelock Road, Norwich.

ELECTION OF MEMBERS, 5 MARCH 1923.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 5 February 1923.

AS FELLOWS (4).

KENYON : ARTHUR WILLIAM [A. 1907], 22 Surrey Street, Strand, W.C.2 ; 47A Russell Road, Kensington, W.14.
ROBERTSON : ANDREW [A. 1893], 278 St. Vincent Street, Glasgow ; 121 Woodstock Avenue, Shawlands, Glasgow.
SOISSONS : LOUIS EMANUEL JEAN GUY DE SAVOIE CARIGNAN DE, O.B.E., S.A.D.G. [A. 1918], Blue Ball Yard, 64 St. James's Street, S.W.1 ; 62 Handside Lane, Welwyn Garden City.
WORMN : GEORGE GREY [A. 1921] Blue Ball Yard, 64 St. James's Street, S.W.1.

AS ASSOCIATES (9).

DIXON : CHARLES GUY [Special War Examination], c/o Dr. W. H. Dixon, Vereeniging, Transvaal, S. Africa.
HASWELL : PERCY BENSON, B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], 10 Grosvenor Park Road, Chester.
KNOTT : ALFRED STOCKEN [Special War Examination], 10 Greycoat Gardens, Westminster, S.W.
NEWHAM : WILLIAM BENJAMIN TURNER [Special Examination], c/o Association of Transvaal Architects, Exploration Buildings, Commissioner Street, Johannesburg, S. Africa.
OWEN : GEOFFREY LEYLAND [Special War Examination], Dockmaster's House, King George Dock, Hull.
SILK : GUY WHITEHALL [Special War Examination], 5 Provost Road, Hampstead, N.W.3.
STOCKS : CLIFFORD WILLIAM BURNETT [Special War Examination], Chamber of Commerce Building, East London, S. Africa.
TAIT : ALFRED ALEXANDER [Special War Examination], Spes Bona Buildings, High Street, Grahamstown, S. Africa.
WILLIAMS : ALBERT ERNEST [Special Examination], 111 Russell Street, Gisborne, New Zealand.

Notices

The Sixth General Meeting (Ordinary) of the Session 1922-23 will be held on Monday, 22 January 1923, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Business) held on 8 January 1923 ; formally to admit members attending for the first time since their election.

To read the following Paper : "The London County Hall," by Mr. Ralph Knott [F.] and Mr. W. E. Riley, R.B.A. [F.]

To read the Council's Deed of Award of Prizes and Studentships, 1922-23.

SPECIAL GENERAL MEETING. REGISTRATION.

A Special General Meeting will be held on Monday, 29 January, at 5 p.m., for the purpose of considering the draft Registration Bill (see p. 156).

Members' Column

Members, Licentiates, and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

MESSRS. WHINNEY, SON & AUSTEN HALL.

MR. THOMAS B. WHINNEY has arranged a partnership with Mr. H. Austen Hall, F.R.I.B.A., and with his son, Mr. H. C. D. Whinney, and the name of the firm will be Whinney, Son & Austen Hall.

MESSRS. E. KEYNES PURCHASE AND ROLAND WELCH.

A PARTNERSHIP has been arranged between Mr. E. Keynes Purchase, F.R.I.B.A., F.S.I., and Mr. Roland Welch, A.R.I.B.A. The title of the firm will be Messrs. E. Keynes Purchase and Roland Welch, and the address 20 and 22, Maddox Street, W.1. (Telephone: Mayfair 2404.)

CHANGE OF ADDRESS.

MESSRS. FORSYTH AND MAULE, F.F.R.I.B.A., have removed their offices from No. 300, Oxford Street to No. 12, Stratford Place, W.1.

MR. ROBERT LOWRY, A.R.I.B.A., has changed his address to 33, St. James's Street, S.W. (Telephone: Regent 1432.)

MR. C. COWLES VOYSEY, A.R.I.B.A., has removed his office to 14, Gray's Inn Square, W.C.1. (Telephone: Chancery 8058.)

ROOM TO LET.

FELLOW has furnished room to let in Gray's Inn Square, sole use also combined office facilities. Inclusive rent with telephone £6 10s. monthly.—Apply Box 2,123, c/o the Secretary R.I.B.A., 9, Conduit Street, W.1.

PARTNERSHIPS.

A FELLOW who has devoted many years to educational work desires to associate himself as collaborator or partner with an Architect in practice, preferably in the Home district.—Apply Box 1,723, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

APPOINTMENTS.

JOHN WILLS AND SONS, Architects and Surveyors, Victoria Chambers, Derby, have an opening for a thoroughly qualified assistant, with good experience, age 30 to 35. He should be quick and accurate draughtsman, good designer, and able to make artistic sketches and perspectives. He should also have sound knowledge of construction, and be able to make large-scale details.

ARCHITECTURAL ASSISTANT wanted by old-established firm in China. Must have good qualifications and experience of work on a large scale. Associate preferred, age 30 to 35 years. Five years' agreement. Liberal Salary.—Apply Box 5123, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

APPOINTMENT OF CHIEF ARCHITECTURAL DRAUGHTSMAN IN THE DEPARTMENT OF PUBLIC WORKS, PALESTINE.

Qualifications.—Energetic and rapid architectural draughtsman with a sound knowledge of construction and design. Must be able to develop working drawings from sketches, and be capable of directing the work of others. Some years of experience in an office of repute essential. **Salary.**—Commencing salary £30 per month; increasing by £1 per month for every year of satisfactory service up to a maximum of £35 per month, plus a high cost of living allowance liable to fluctuation but at present amounting to £2.80 per month. **Quarters.**—If married, Government may provide living accommodation for which 8 per cent. of total emoluments will be deducted monthly from salary. **Leave.**—Six weeks in each year of service. **Passage.**—Second Class by boat and first by train to Palestine; and back at conclusion of contract. **Probation.**—For one year the candidate will be on probation, during which time he will be liable to discharge on the expiration of three months' notice. On the other hand, if his work gives satisfaction, he may, at the end of the probationary year, be offered a post in the permanent service of the Palestine Government.—Apply in the first instance to Box 1,113, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENTS WANTED.

A.R.I.B.A. with own office in W.C. District wishes to get in communication with architects requiring additional assistance at own or their offices. Ex-officer, 16 years' architectural experience. Would also take position as assistant with a view to partnership. (Telephone : Holborn 4683.)—Apply Box 2,912, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

A.R.I.B.A., with 19 years' varied experience, desires appointment. Recent experience on Bank premises. Willing to acquire interest in established practice after probationary period.—Apply Box 9,212, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

A.R.I.B.A., 39, eight years' West End experience, seven years' private practice in Kent (exclusive of war service), desiring wider opportunities, seeks position as Manager-Assistant in London office; would introduce own work on terms; R.A. exhibitor; distinctive designer.—Apply Box 9,123, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

ARCHITECTURAL JUNIOR ASSISTANT requires post. London preferred, Age 23. Four years' varied experience (London). First-class draughtsman. Excellent references.—Apply Box 999, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE. Experienced Senior Assistant desires appointment in London. Fully qualified and able to take charge.—Apply Box 8,123, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

SCOTLAND.

SCOTTISH Architect in practice in Edinburgh, A.R.I.B.A., F.S.I., is prepared to collaborate with London Architects having commissions in any part of Scotland. Apply Hon. Secretary, Edinburgh A.A., 14, Hill Street, Edinburgh.

WANTED.

ARCHITECT would like to purchase a second-hand adjustable drawing-board trestle in good condition.—Apply Box 2212, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

Minutes V

SESSION 1922-1923

At the Fifth General Meeting (Business) of the Session 1922-1923, held on Monday, 8 January 1923, at 8 p.m.—Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 10 Fellows (including 5 members of the Council), and 7 Associates (including 1 member of the Council).

The Minutes of the Special General Meeting and the Fourth General Meeting (Ordinary) held on Monday, 18 December 1922, having been taken as read, were confirmed and signed by the Chairman.

On the motion of the President it was

RESOLVED that the congratulations of the Royal Institute be conveyed to Sir T. Edwin Cooper [F.] on the knighthood recently conferred upon him by His Majesty.

The Secretary announced the decease of Mr. George Thomas Brown, who was elected a Fellow in 1905, Hon. Secretary of the Northern Architectural Association; Mr. J. M. D. Henderson, who was elected an Associate in 1921, and Mr. A. R. Wood, who was elected a Licentiate in 1911, and it was

RESOLVED that the regrets of the Royal Institute for the loss of these members be recorded in the Minutes.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. A. S. R. LEY [F.]
Mr. MAX. R. HOFLER [A].
Mr. HERBERT MOODY [A].

The following candidates for membership were elected by show of hands:—

AS FELLOWS (5).

EPPS : WALTER MAXTED [A. 1908].
FOURACRE : JOHN LEIGHTON [A. 1905]. Plymouth.
SOLOMON : DIGBY LEWIS, B.Sc.Lond. [A. 1907].
THOMPSON : CHARLES WILLIAM WARD [A. 1911].
WALKER : THOMAS [A. 1913]. Trowbridge.

AS ASSOCIATES (4).

DEVEREUX : WALTER ALAN [Passed five years' course at Architectural Association, London—Exempted from Final Examination after passing Examination in Professional Practice].

DUNN : ALICK STEAD [Special War Examination]. Bombay, India.

MOODIE, IAN ALEXANDER [Passed six years' course at Robert Gordon Technical College, Aberdeen—Exempted from Final Examination after passing Examination in Professional Practice]. Aberdeen.

SCOTLAND : GEORGE BRUCE [Passed five years' course at Glasgow School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice]. Airdrie.

The Secretary announced that by a Resolution of the Council the following had ceased to be Licentiates of the Royal Institute:—

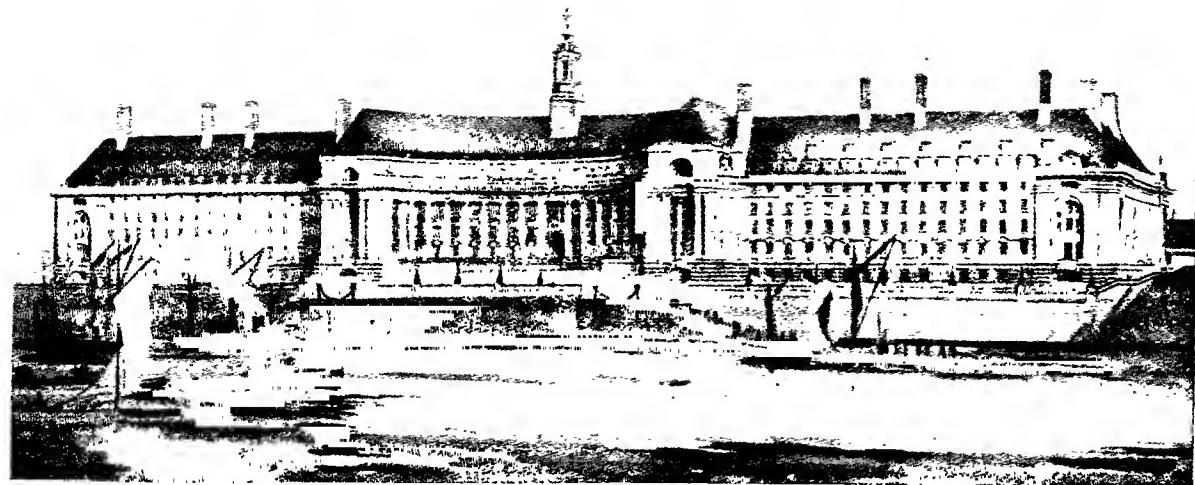
Alfred Henry Barnes.	George Rowbottom.
David William Baxter.	Charles Procter Sherwin.
Franklin Joseph Bellamy.	Ernest Sprankling.
Richard Coulson.	Charles Triffitt.
William A. Forsdike.	Richard Arthur Waite.
Frederick Forbes Glennie.	George Walton.
Thomas Frank Hawkes.	Richard Samuel Wardle.
John George Douglas Hoets.	E. H. Wigley.
Edward William Lister.	John Ross Wills.
Izmay Massey.	Arthur Gordon Wilson.
George Metson.	Osborn Wright.
George Alexander Pyott.	Walter Guy Young.

The Meeting terminated at 8.10 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

*From a drawing by the late Mr. Alick Horsnell*

THE COUNTY HALL

The New London County Hall*

BY RALPH KNOTT [F.] AND W. E. RILEY [F.], R.B.A.

(Read before the Royal Institute of British Architects, Monday, 22 January 1923.)

IT can well be imagined that the discharge of all the multifarious responsibilities that are borne by the London County Council involves the employment of a large staff, and that if these functions are to be efficiently and conveniently discharged, it is almost a necessity that such a staff should be suitably housed in one building, which would also include proper provision for the civic representatives. The Council's work has, however, developed and increased in such a way that the accommodation originally provided for it soon became inadequate, and increases in staff were met by the leasing of outside buildings in the neighbourhood of the old County Hall at Spring Gardens, which led eventually to the central office staff being distributed over 25 blocks of buildings, on leases having unexpired terms varying from a few months to many years. Great inconvenience was caused in more recent years in administering various departments, as not only were the departments and staff separated in a large number of distinct buildings, but in many cases their distance apart was considerable, and in one extreme case the distance

was nearly a mile from the County Hall at Spring Gardens. Several of the departments had their accommodation distributed over two or more buildings, and in the case of the Architect's department the staff were, at one time, spread over no fewer than ten of these buildings. As a number of the offices were in what were formerly private houses, the accommodation was far from being suitable for conducting the work, which was carried on in a wasteful and inconvenient manner. The rental value of the buildings in the neighbourhood of Whitehall and Trafalgar Square was necessarily high under such circumstances.

The L.C.C., many years ago, set itself to deal with the problem that arose, and considered the suitability of various sites for the building of a new County Hall that would accommodate representatives and official staff in a suitable way. Sites were considered in Parliament Street, Trafalgar Square and the Adelphi, all eventually abandoned in favour of one adjacent to the Thames and the southern approach to Westminster Bridge—where, in fact, the new building now stands. This site was acquired in April 1905 at an approximate cost of

* The Paper was read by Mr. Riley.

£600,000, and as its area—including $2\frac{1}{2}$ acres of reclaimed foreshore—was about $6\frac{1}{2}$ acres, such cost works out at a figure approaching £100,000 an acre, a relatively cheap price as compared with the cost of other sites considered, which would have worked out at nearly £350,000 an acre for the Parliament Street site, over £400,000 an acre for the Trafalgar Square site, and £270,000 an acre for the Adelphi site.

A good deal of credit attaches to Mr. J. D. Gilbert (an old member of the Council) for the acquisition of the river site, for as far back as the year 1898 he advocated—as a part of his proposal for a southern river embankment between Westminster and Blackfriars Bridges—the erection of a new County Hall and offices on land that would become surplus from such an improvement if carried out. It is much to be hoped that the further section of a southern embankment that has now been formed in front of the County Hall may definitely be continued up to the City and effect an improvement in that section of the river that has for long required attention to bring the two sides of the river more in harmony with one another and with the requirements of a great city. It is no small thing that Mr. Gilbert's advocacy of the substitution of a regular and dignified embankment for the present haphazard and somewhat squalid buildings that now line the southern side of the river should have resulted in the desirability of the change being recognised to even its present extent, and the consideration given in more recent years to the question of a new Charing Cross Bridge has further impressed on the public mind the value of proper consideration being given not only to the more purely practical factors in civic or commercial life, but also to the value of improving the amenities of London whenever it becomes possible to do so.

A site having been acquired in 1906, steps were taken to hold, in the following year, an international competition for designs for the new building, and advice was given by this Institute—as members are well aware—in this connection. The proposal was to have a competition in two stages, the first being an entirely open one from which ten designs would be selected, and at the final stage eight other leading architects would also be invited to submit designs. Mr. Norman Shaw and Mr. Riley, the Council's official architect, were to act as assessors in the first stage of the competition, and subsequently a third assessor was to be selected by those competing in the final stage. The

Council decided to hold the competition upon this basis, and that not less than ten or more than fifteen designs should be selected by the assessors in the preliminary stage, and that all competitors in the final stage should receive a fee of 200 guineas. The conditions were accordingly drawn up. One of these conditions—considered desirable in the Council's interests—was that Mr. Riley should be eventually associated with the selected architect, in order that he might deal with aspects of the problem necessary to secure such a building as the Council required, and watch the economic side.

In the preliminary stage of the competition there were sent in 99 designs, the work of 152 architects, some of whom worked independently and others in collaboration; eight of these architects were of foreign birth. The designs in this stage of the competition were received in August 1907.

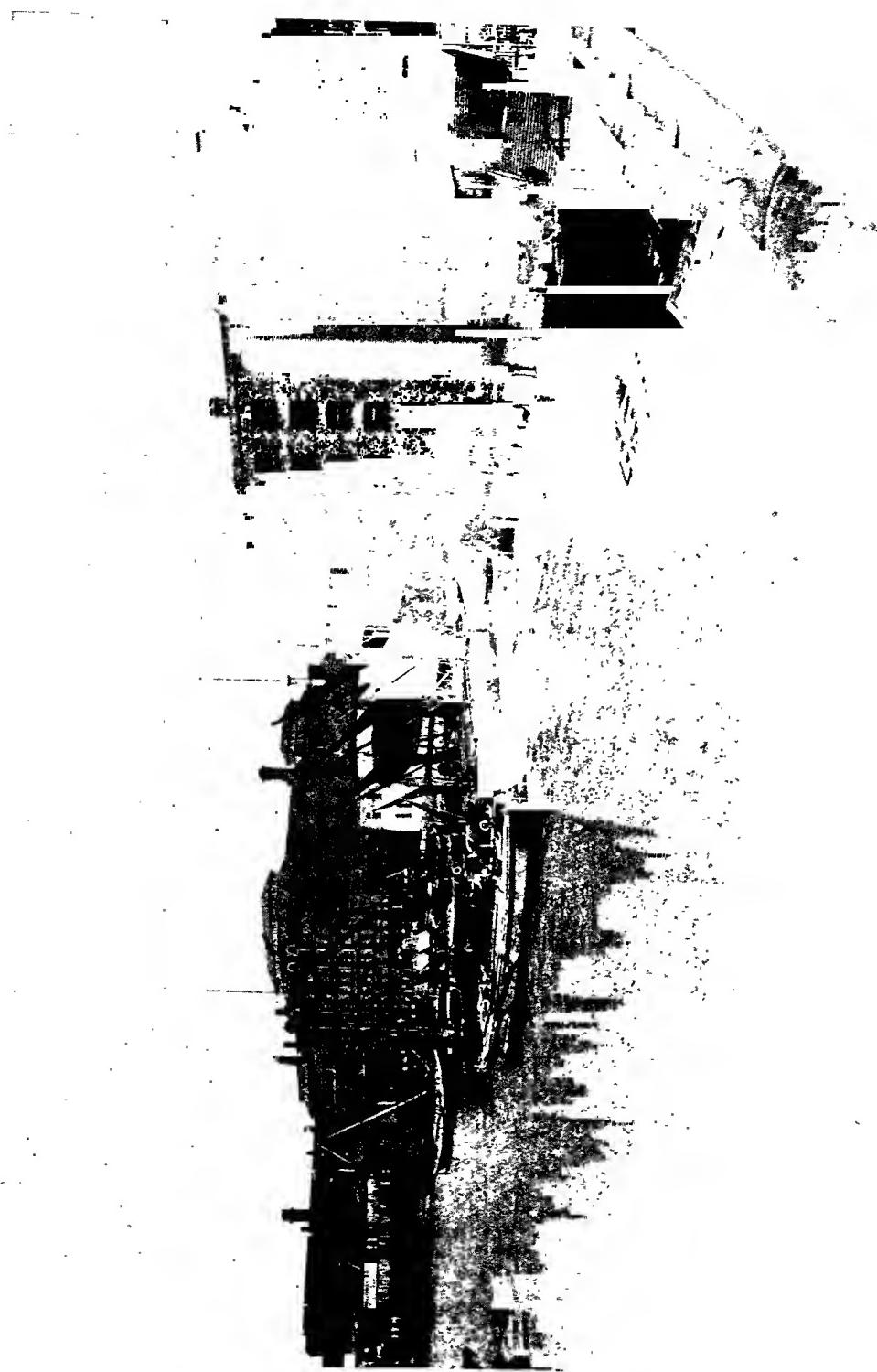
The competition designs in the final stage were received in January 1908—Sir Aston Webb having in the meantime been selected by a majority of the final group of competitors as the third assessor—at the end of which month the assessors' award was declared showing that Mr. Ralph Knott was the author of the successful design. This was described as being a forcible and artistic suggestion which conveyed the purpose for which it was to be erected; that it was almost entirely without costly and unnecessary features; and the approval of which was made subject to various modifications, including that of the central projection on the river front, and that, suggested by Mr. Knott himself, of omitting the large flight of steps into the river beyond the embankment.

Mr. Knott's design was accordingly accepted. It was subsequently modified on the lines suggested by the assessors, a slightly projecting segmental bay and flights of steps parallel to the embankment being substituted for the large projecting flight of steps. The design was further modified by the omission of a cross colonnade in the central portion of the river frontage, the "order" being carried round the crescent.

NATURE AND EXTENT OF ACCOMMODATION.

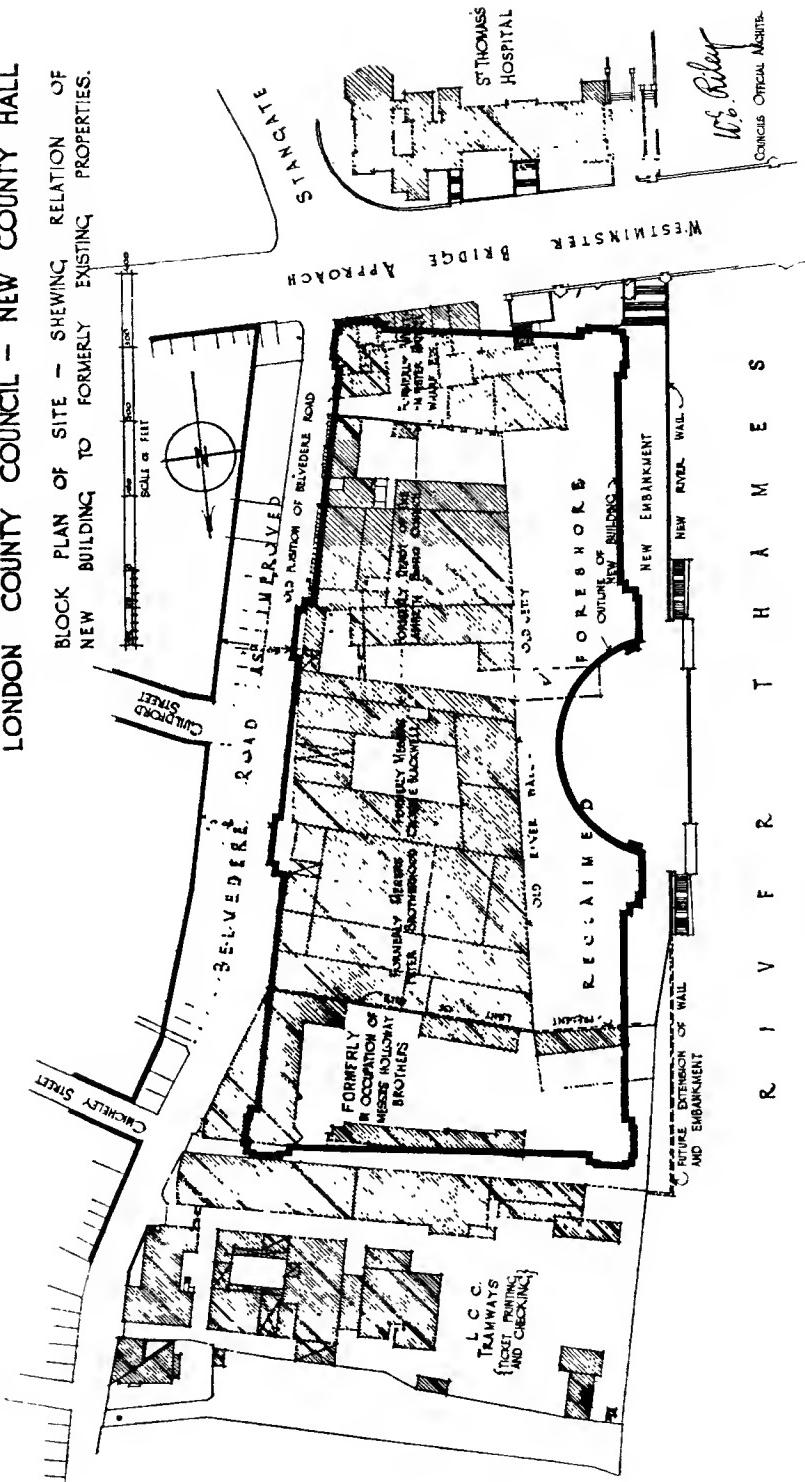
The Council felt that the accommodation ultimately to be required depended mainly on the action of Parliament in imposing new duties on the Council or in withdrawing some of its existing functions, and as this could be only a matter for speculation it based its calculations on its existing

VIEW OF FORMER BUILDINGS ON THE SITE



LONDON COUNTY COUNCIL - NEW COUNTY HALL

BLOCK PLAN OF SITE - SHewing RELATION OF
NEW BUILDING TO FORMERLY EXISTING PROPERTIES.



THE NEW LONDON COUNTY HALL

duties, making such allowance as seemed reasonable for extra requirements when the services and the county should be fully developed.

It was only in the accommodation for the use of members that an attempt was made to anticipate possible legislation, and provision was, therefore, made for an increase in the number of members up to about 200. If a council chamber were provided for 137 only—which was the number of members at the time it was decided to proceed with the erection of the new County Hall—it would be extremely difficult to enlarge it afterwards; and any possible enlargement would probably lead to unsatisfactory results. A similar argument applies in a less degree to all rooms for the common use of members, while any superfluous rooms can always be turned to good use for the accommodation of the staff.

In order to fix a reasonable standard of accommodation, much attention was paid to the amount of floor space which should be allowed for officials of the various classes, and with this object several large blocks of modern offices, both public and commercial, were inspected. Although the standard varies slightly in the different departments, the undermentioned approximate areas generally obtain :—

	Square feet
Heads of departments	400
Chief assistants	250
Heads of sections	150
Draughtsmen	120
Clerks engaged on committee work and clerks dealing with plans	100
Ordinary clerks	80
Typists and assistants engaged on routine work	50

These superficial areas in a well-lighted and ventilated building will be quite adequate for the efficiency of the work and the health of the staff.

Another question which the Council had to consider was whether a completed building should be erected on the portion of the new site excluding Messrs. Holloway's premises, or whether so much of the scheme, with any necessary modifications, as would extend from Westminster Bridge to those premises should be erected. Accommodation was required for a minimum of 137 members and a staff of 2,100. On the site—less Messrs. Holloway's premises—accommodation could be provided for 200 members and a staff of 2,270, and on the whole site for 200 members and a

staff of 2,850. The Council was advised that not less than seven years would elapse before the whole of the staff could be housed in the new building. By that time the Council would be in a position to take over Messrs. Holloway's premises if it so desired, and the Council would have the choice—according as the experience gained in the construction of the new building and the variation in its work dictated—either of holding its hand or of proceeding with the building on the rest of the site. It was accordingly decided to proceed with so much of the scheme as related to the portion of the site excluding Messrs. Holloway's premises.

WIDENING OF BELVEDERE ROAD.

The Ecclesiastical Commissioners were free-holders of part of the site of the new County Hall and of property on the east side of Belvedere Road. An agreement was come to with them, by which the Council was at liberty to erect the new building to the then existing line of frontage on the west side of Belvedere Road a building 60 feet in height to the top of the parapet, but for every three feet by which it was desired to increase the height of the building beyond this limit the frontage had to be set back two feet.

The average width of the road at this part was only 37 feet, and it was felt that, if the Council's site was to be utilised to the fullest advantage, and if proper means of access to the new building were to be provided, it was essential that the road should be widened. A widening of 60 feet by setting back the frontage on the east side of the road would provide a uniform frontage on the west side, thus enabling an area of about .15 acre to be added to the Council's site. Moreover, as the Council would be under no obligation, if it desired to increase the height of the building to more than 60 feet, to set back the frontage, the area of the effective building would be increased by .42 acre.

The property at the junction of Westminster Bridge Road and Belvedere Road had been demolished and the adjoining site in Belvedere Road was vacant, so that a favourable opportunity was presented for undertaking the improvement. The Council, in May 1908, approved the scheme, which was forthwith proceeded with. The net cost was estimated at £44,500, but the Council has sanctioned extensions of the improvement (as opportunity offers) as far as Chicheley Street, and these have increased the estimated net cost to £56,950.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The widening, besides increasing the facilities for traffic, improves the lighting of the rooms on the east side of the new building, and allows this frontage to be seen to greater advantage.

EMBANKMENT WALL.

Tenders were invited from selected firms for the construction of the embankment wall, and the lowest, which was submitted by Messrs. Price and Reeves, was accepted. The engineering work was designed by and executed under the supervision of the Council's chief engineer, Mr. (now Sir) Maurice Fitzmaurice, C.M.G. The architectural features of the central part of the wall were designed by the architects.

Under the Council's Act of 1906 for the construction of the new County Hall, power was given to enclose the foreshore of the river forming the western boundary of the acquired site. By so doing an additional area of nearly $2\frac{1}{2}$ acres became available, and accordingly, and also with the object of making a suitable river frontage for the buildings, a new river wall was built.

A wall already existed in front of St. Thomas's Hospital, on the up-stream side of Westminster Bridge, and the new wall outlines the continuation of the line of the river on the down-stream side. As regards its main features, it was obviously desirable to make them similar to those in the embankment walls already existing on both sides of the river, though the method of construction and many details of work were different. The wall is composed of Portland cement concrete, faced with granite ashlar work, and surmounted with an ornamental granite parapet, the granite being obtained from Aberdeen and Cornwall. The centre portion of the wall, which is flanked by two flights of steps leading to the river, forms an important architectural feature of the whole County Hall scheme, and the granite there has been left with a rough rock face.

The wall is founded on the clay underlying the ballast which extends all through the Thames valley. Consequently in sinking for the foundations the whole of the bed of ballast had to be traversed, together with the Thames mud overlying it. A solid and watertight foundation has thereby been rendered possible.

In settling the depth to which the foundation should be carried, allowance had to be made for proposals for deepening the river bed below West-

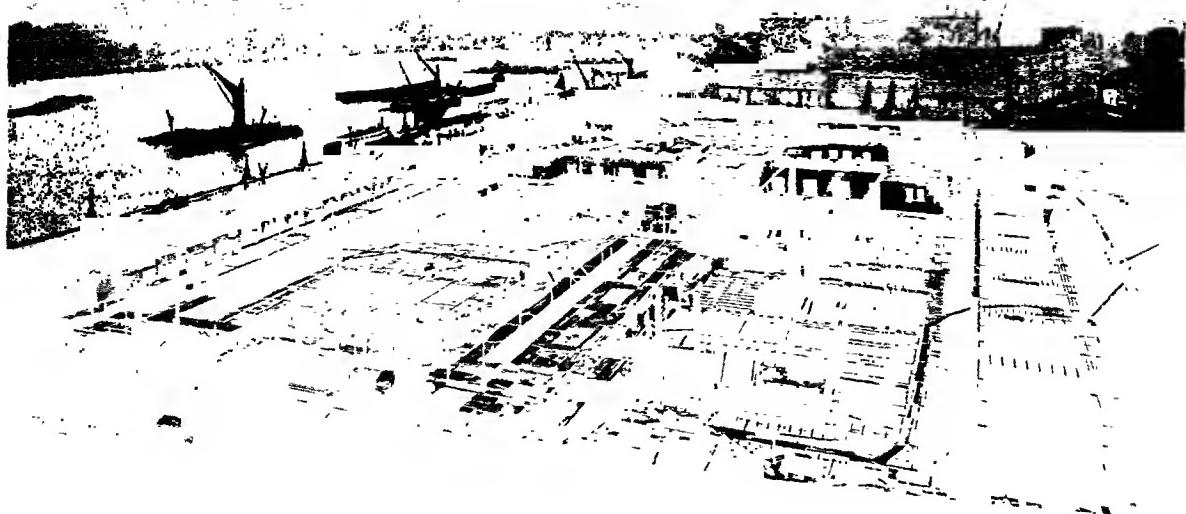
minster Bridge. On this account the foundations were taken down to $35\frac{1}{2}$ feet below Trinity high-water mark. The average original level of the foreshore where the wall is built was only about 2 feet above low-water mark. A temporary dam, therefore, was necessary, not only to construct the wall, but also to allow the work of excavating for, and putting in, the foundations of the Hall to proceed rapidly. The form of dam decided upon by the chief engineer was a single pile dam, composed of a row of tongued and grooved whole timber piles, 14 inches square in section. These piles had to be driven through 4 feet of mud and 11 feet of ballast before they reached the clay, which they penetrated until their points were 9 feet below what would be the bottom of the new wall. The dam was struttied with timber struts and rakers to other temporary piles driven at the rear, and, owing to the depth of the mud behind and its compressibility, much difficulty was experienced in finding a reliable support to withstand the very considerable pressure—about 6,000 tons at high water.

The construction of the wall was started in January 1909, and completed in September 1910. The total cost amounted to £58,000.

The northern extension of the river wall (in front of Messrs. Holloway's premises), forming the remaining one-third of the length, and a return wall sealing up the northern end of the site were built inside a dam composed of steel sheeting struttied with timber. The contract was let just before the commencement of the war, and, owing to the necessity of protecting the site from inundation, work was allowed to proceed until its completion in May 1917. This portion of the work was carried out under the supervision of the present chief engineer of the Council, Mr. G. W. Humphreys, C.B.E., who succeeded Sir Maurice Fitzmaurice in 1913.

CONCRETE RAFT AND RETAINING WALLS.

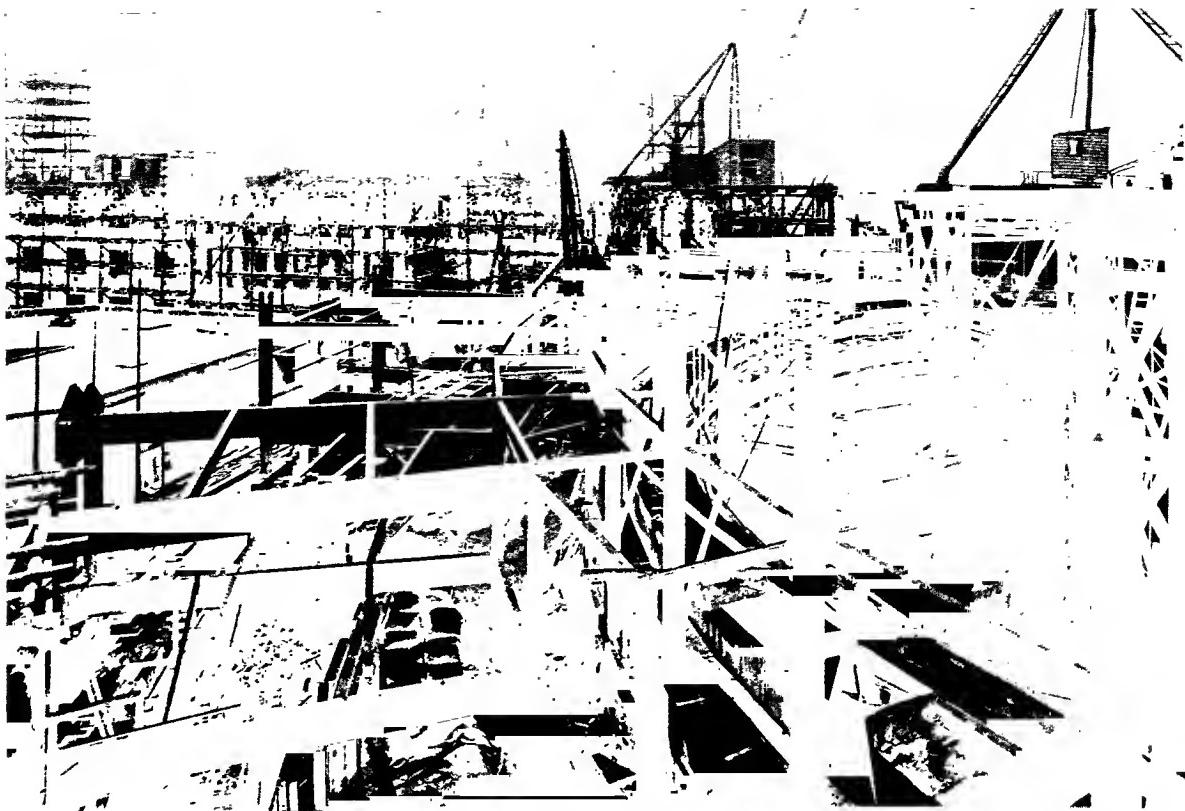
As a result of trial borings it was ascertained that the sub-soil consisted approximately of 12 feet of made ground, 7 feet of Thames mud, and 13 feet of ballast, under which occurs the London clay. The foundation for the new building has been formed with a "raft" of Portland cement concrete on the top of the ballast stratum. It was decided to adopt a thickness of 5 feet throughout for the raft, and it is laid directly on the ballast bed, which is found at a level of -8 O.D. This course was



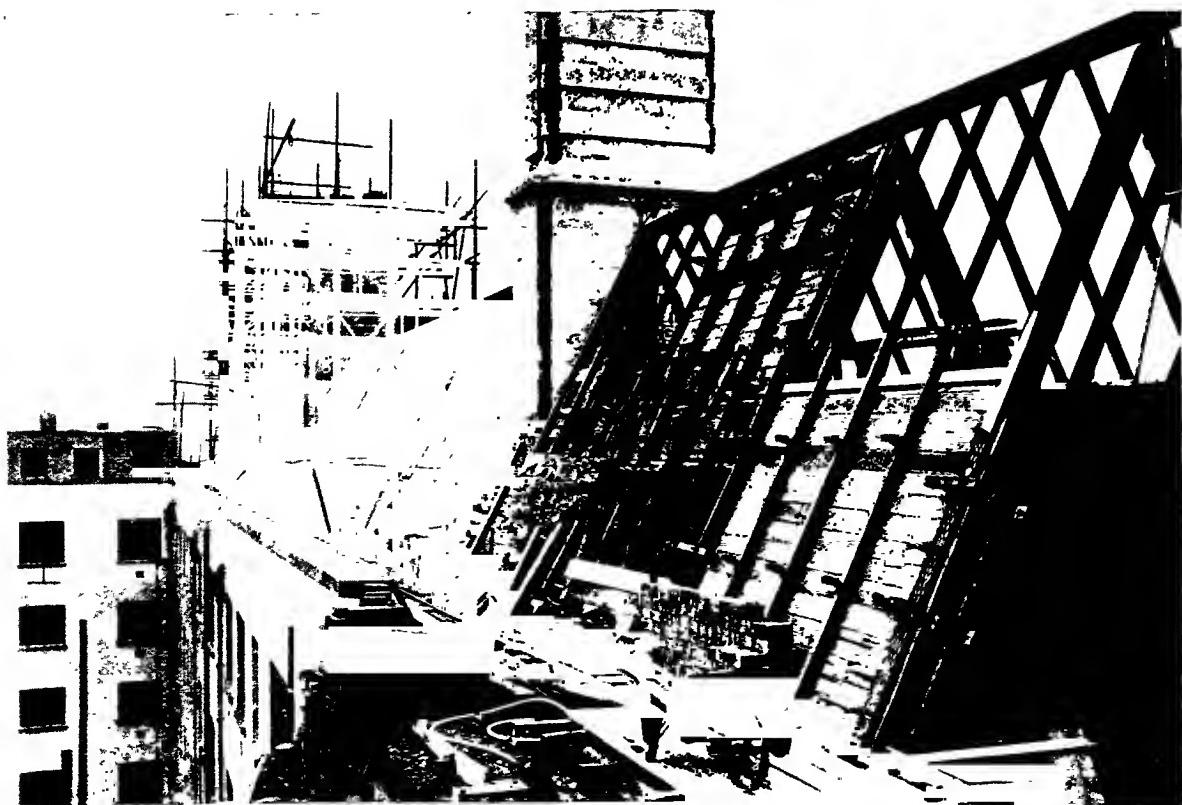
GENERAL VIEW FROM SOUTH



GENERAL VIEW FROM SOUTH, SHOWING INUNDATION.



RADIATING STEEL BEAMS IN FLOORS OF CRESCENT BLOCK



STEELWORK IN ROOF CONSTRUCTION

THE NEW LONDON COUNTY HALL

adopted in order to save time and to expedite the work, the drawings for which were not then matured, and this construction had the advantage of being sufficiently stable to carry any loads which it might be required to place upon it.

Owing to the depth of this foundation below the roadway (about 23 feet) retaining walls were necessary on the south and east sides of the site, formed of concrete and varying in thickness from 10 feet at the base to 4 feet at the top. The embankment wall, etc., previously referred to, forms the retaining wall on the west side, and, as the northern end of the site is still occupied with the department dealing with the Council's tramways, this boundary remains to be dealt with. Tenders for the work were invited from selected firms. The lowest, amounting to £46,900, was submitted by Messrs. F. and H. F. Higgs, and was accepted. Their contract was completed in the autumn of 1911.

During the progress of the excavations remains of a Roman boat were discovered upon the site of Section B. It was lying N.E.-S.W., with its bow towards the shore, 7 feet below Ordnance Datum, 19 feet 6 inches below high water, and 21 feet 6 inches below the level of Belvedere Road. It measured approximately 38 feet in length and about 18 feet beam. A considerable portion of the stern end was missing, but, so far as can be judged, it would seem to have been about 60 feet in length, with a beam of about 16 feet. In the boat itself were found four bronze coins of (i.) Tetricus the Elder in Gaul, A.D. 268-273; (ii.) Carausius in Britain (2), A.D. 286-293; and (iii.) Allectus in Britain, A.D. 293-296; portions of leather footwear studded with iron nails, and a quantity of pottery, etc. The presence of a belaying pin and a block to contain two pulleys and the massive construction suggest that the vessel may have carried sail. Near the boat were found two British spear-heads, a Celtic iron dagger and bronze scabbard with ornamental terminations, several horseshoes, two coins of the first century A.D., and fragments of bowls.

SUBSTRUCTURE.

As soon as practicable, arrangements were made for the construction of the substructure of the new building—viz., from the top of the concrete raft to the ground floor level, a height of 24 feet 6 inches. Tenders were invited from selected firms, and the lowest, amounting to £47,738, which was submitted by Messrs. Chas. Wall, Ltd., was accepted.

For convenience of construction, the building was divided into three sections :—A, central ; B, southern ; C, northern. The tender comprised the construction of the substructure of the first section, A, and the completion of the raft foundation work and retaining wall in Belvedere Road to the north of Guildford Street. The Council decided, in accordance with the conditions of tender, to require Messrs. Wall to construct the remaining two sections, B and C, at the schedule of prices included in the original contract. Messrs. Wall's contract was completed in March 1913.

THE PLAN.

The plan adopted for the building embodies various features that were subsequently considered desirable to produce a satisfactory arrangement of plan, including the straightening up of the old irregular Belvedere Road frontage to a new improvement line. As now planned, the council chamber forms the centre of the building, being placed at the intersection of the longitudinal and two transverse axes, the latter being at right angles to the river and Belvedere Road fronts respectively. The cross blocks are placed at right angles to the longitudinal axis, which, as it happens, is practically due north and south, and in all blocks direct natural lighting is provided to both the rooms and corridors. The members' courtyard, with entrance drive from Westminster Bridge approach, is an interesting feature of the plan. By its means, members of the Council are brought in direct touch with their own apartments in the building, centring around the council chamber.

Another means of access to the members' portion of the building, intended primarily for ceremonial purposes, is from the large entrance hall (85 feet by 32 feet) in the centre of the Belvedere Road front, at the ground floor level, from which a wide straight staircase leads up to the eastern lobby of the chamber.

The accommodation, after full consideration, was arranged as follows :—The representatives have accommodation assigned to them around the council chamber. It was, therefore, necessary to decide where the main entrance could be most conveniently arranged, and Westminster Bridge Road was fixed upon as the principal business entrance, and Belvedere Road for the ceremonial entrance. The accommodation required for the representatives comprises cloak rooms, committee rooms, and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

private rooms for the chairmen of committees, and in the centre of the crescent are placed the chairman, the vice-chairman, the deputy-chairman of the Council, and the whips of the parties. The reading room, library and refreshment rooms are also on the river front.

It was found essential that certain chief officers (with their personnel) should be on the same floor, and this formed a key for placing the staff of each department, which is either immediately below or above each chief officer's room.

On completion of the substructure, the main contract for the superstructure commenced in August of 1913, and was timed to be completed in three years, the contractors being Messrs. Holland and Hannen and Cubitts, Ltd., of Gray's Inn Road. As will be readily understood, the intervention of the war upset all calculations of time, and otherwise, with this as with other undertakings of a similar kind. Work was eventually stopped, and only resumed in the summer of 1919.

The walling generally is of London stock bricks, strengthened where unusual loads are encountered with blue brickwork in cement. Floor and flat roofs generally are of the usual steel joist and concrete construction. The structural work includes built-up steel stanchions where required by the planning of the building ; and the steel framing for the roof, which includes two floors of offices, has required special treatment, owing to its somewhat unusual form and the heavy loads to be carried.

STEELWORK.

During the earlier stages of the design, careful consideration was given to the question of the extent to which steel should be employed in the building, and the comparative advantages of reinforced concrete and ordinary steel joist construction were investigated. It was seen that the massive character of the piers and walls, required to give effect to the architectural design, rendered unnecessary the general use of steel stanchions or of anything in the nature of a steel framework.

The investigations were, therefore, made chiefly with the object of ascertaining the most suitable construction for the floors and roofs, and, as a result, it was decided to use steel girders and joists cased in concrete and designed in accordance with the requirements of the 1909 Act.

Provision was made for the following superimposed loads :—

	Lb. per sq. ft.
Office floors generally	100
Basement floors (for storage purposes)	224
Loft floors	75

The maximum pressures allowed on brickwork and concrete were those permitted under the 1909 Act already referred to.

As an exception to the general rule, stanchions and girders of heavy construction are to be found in Block 2, where the large committee room and offices on the upper floors are supported over the boiler-house.

Probably the most interesting features in the steelwork occur in the floor of the council chamber, in the roof, and in the construction of the fleche.

The framework of the roofs generally commences with riveted plate girders, the ends of which receive support at the fifth-floor level. The girders were built up in a bent form, one portion following the slope of the roof from the fifth to the sixth floors, and the remaining portion forming a horizontal main girder in the sixth floor. The other end of this girder receives support from brickwork or from other girders at the level of the sixth floor. A second built-up girder, also with an inclined leg, is carried by each of the sixth floor main girders, and the horizontal portion of this second girder provides the support for joists forming the loft floor.

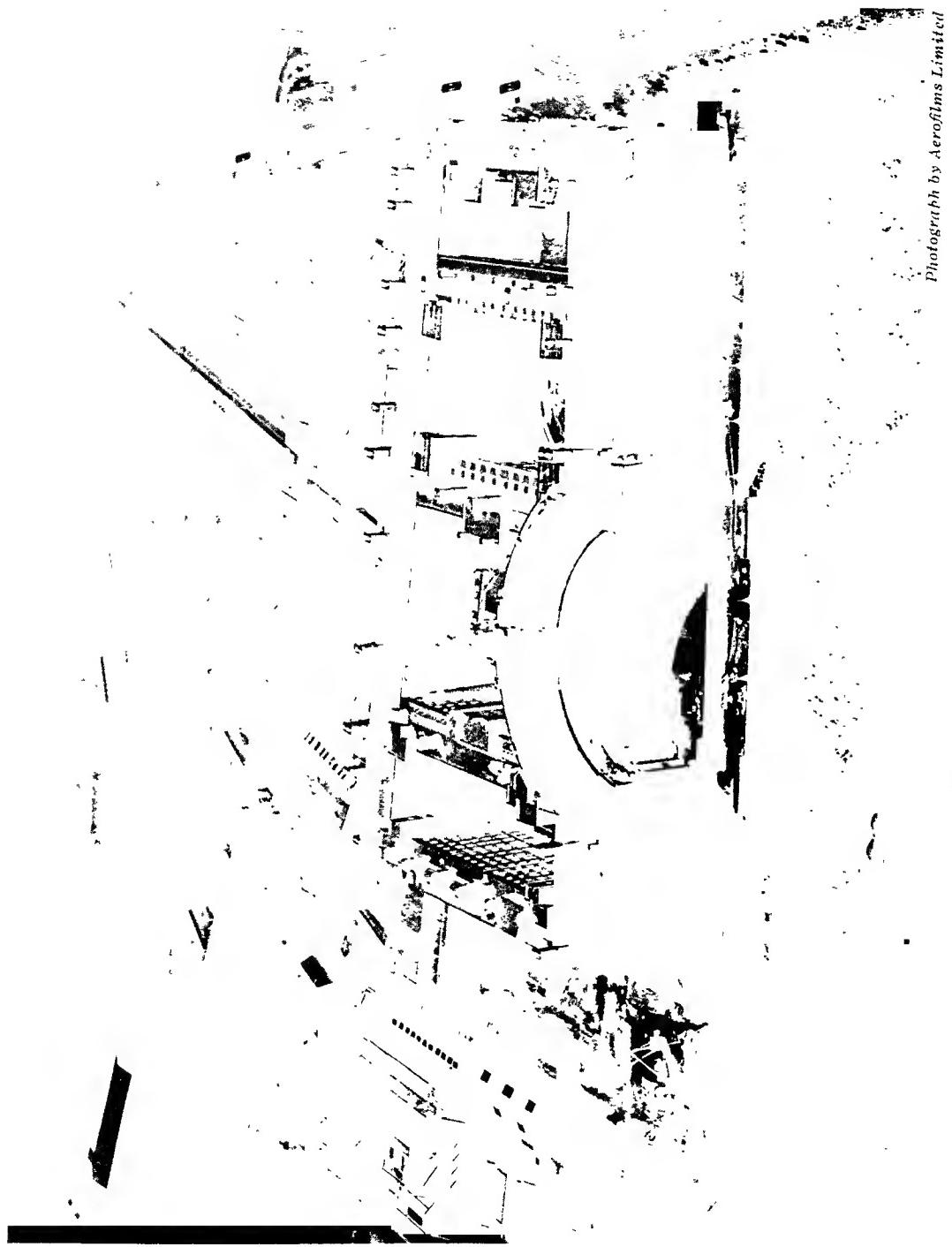
The roof above the loft floor is in the form of an "A" frame of steel joists, attached at the foot to the main girders in the loft floor, and well stiffened by diagonals of angle steel. Steel joists and purlins have been employed, to which steel rafters, 4 inches by 3 inches joist section, are secured.

The approximate weight of steel used in the structure is 8,000 tons.

Messrs. Whitaker, Hall and Owen were the consulting engineers for the constructional steelwork, and the firms entrusted with the execution of portions of the work were Messrs. Chas. Wall, Ltd., Messrs. Dorman, Long and Co., Ltd., Messrs. E. C. and J. Keay, Ltd., and Messrs. Joseph Westwood and Co., Ltd. The commonly experienced difficulties in the supply of structural steelwork were a great handicap to progress.

TREATMENT OF THE INTERIOR.

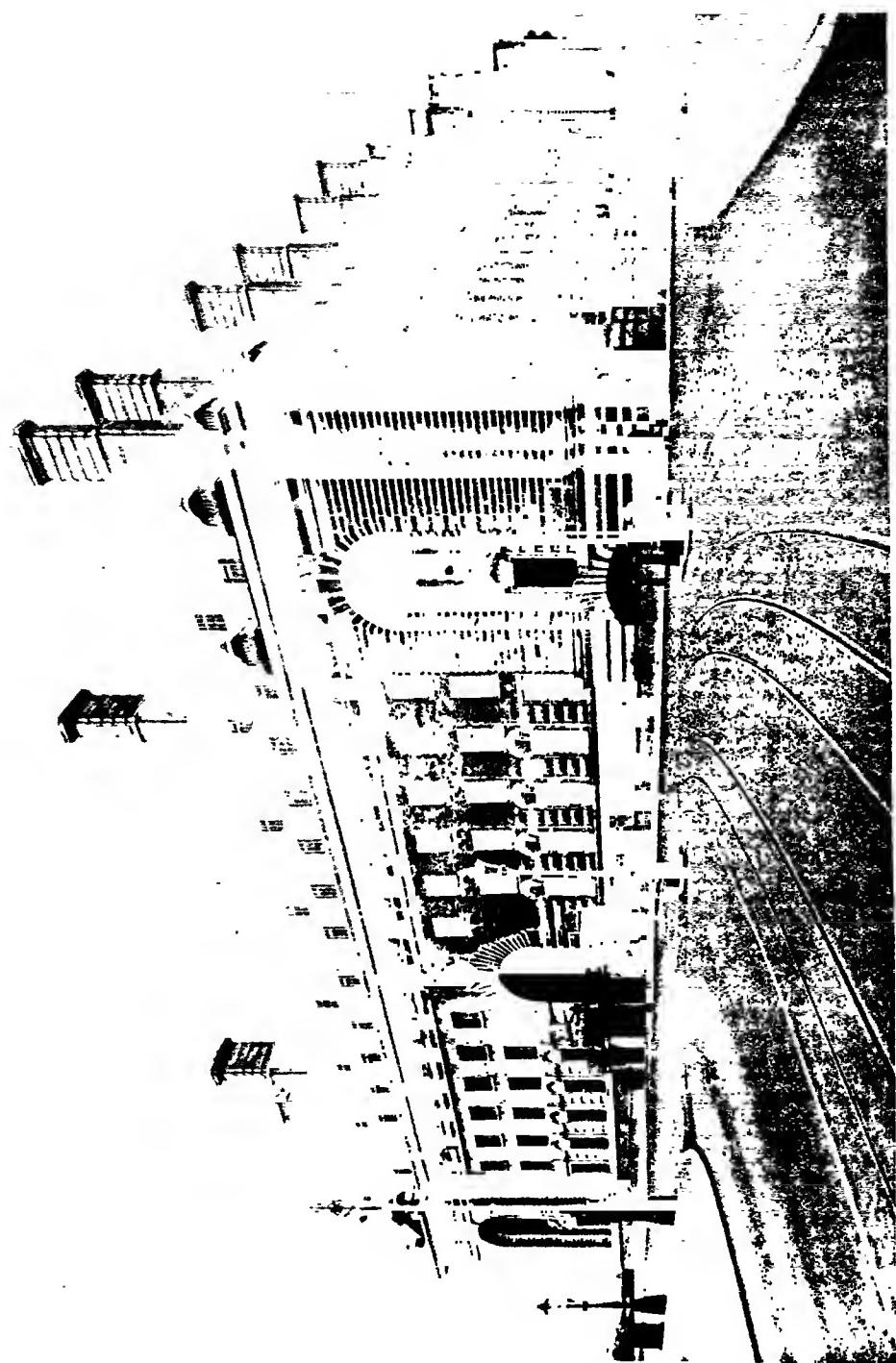
The ceremonial entrance from Belvedere Road has a staircase 15 feet in width, and its side walls, which are lined with marble, support a colonnade carrying the barrel-vaulted ceiling of the staircase



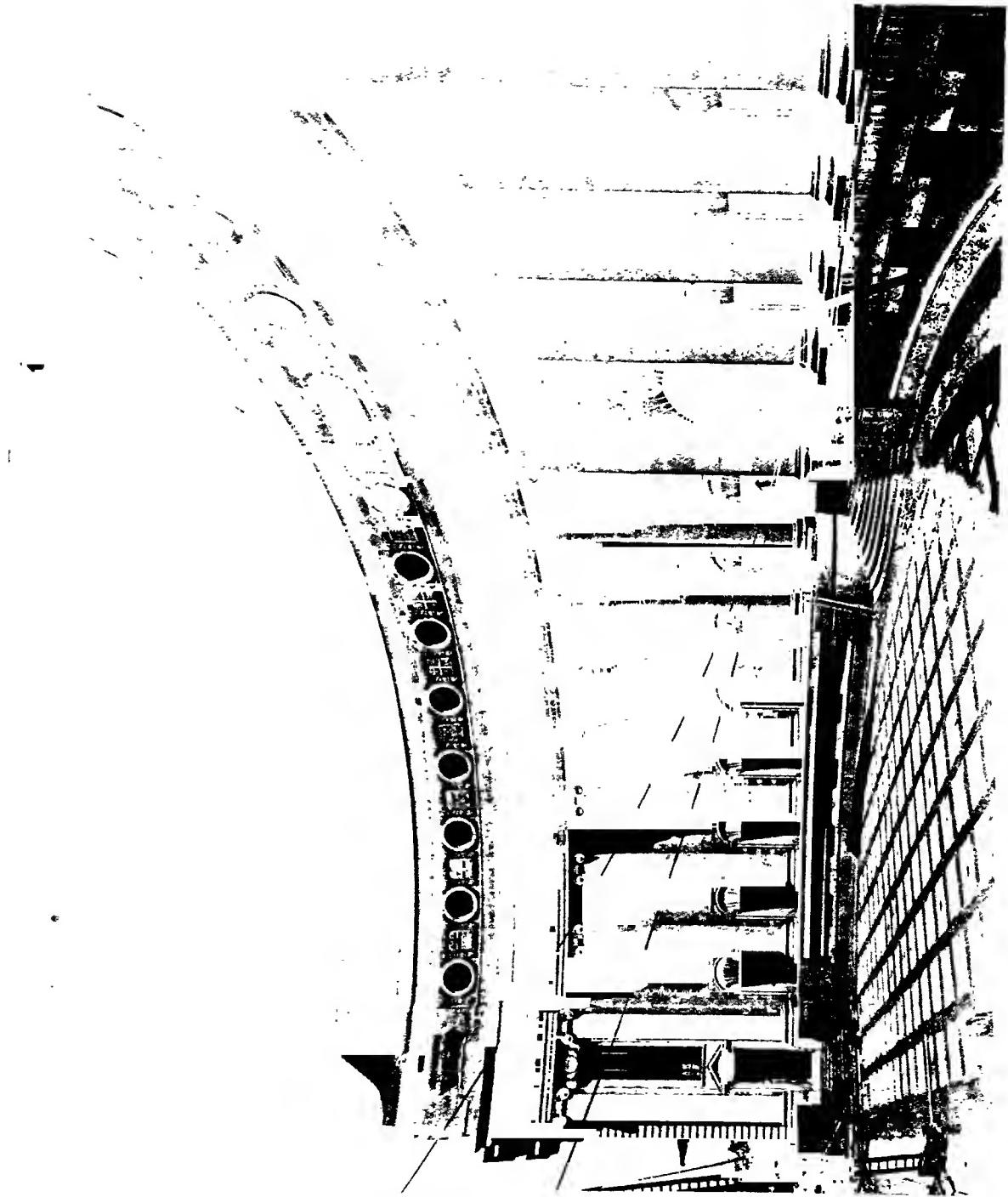
Photograph by Aeroflums Limited

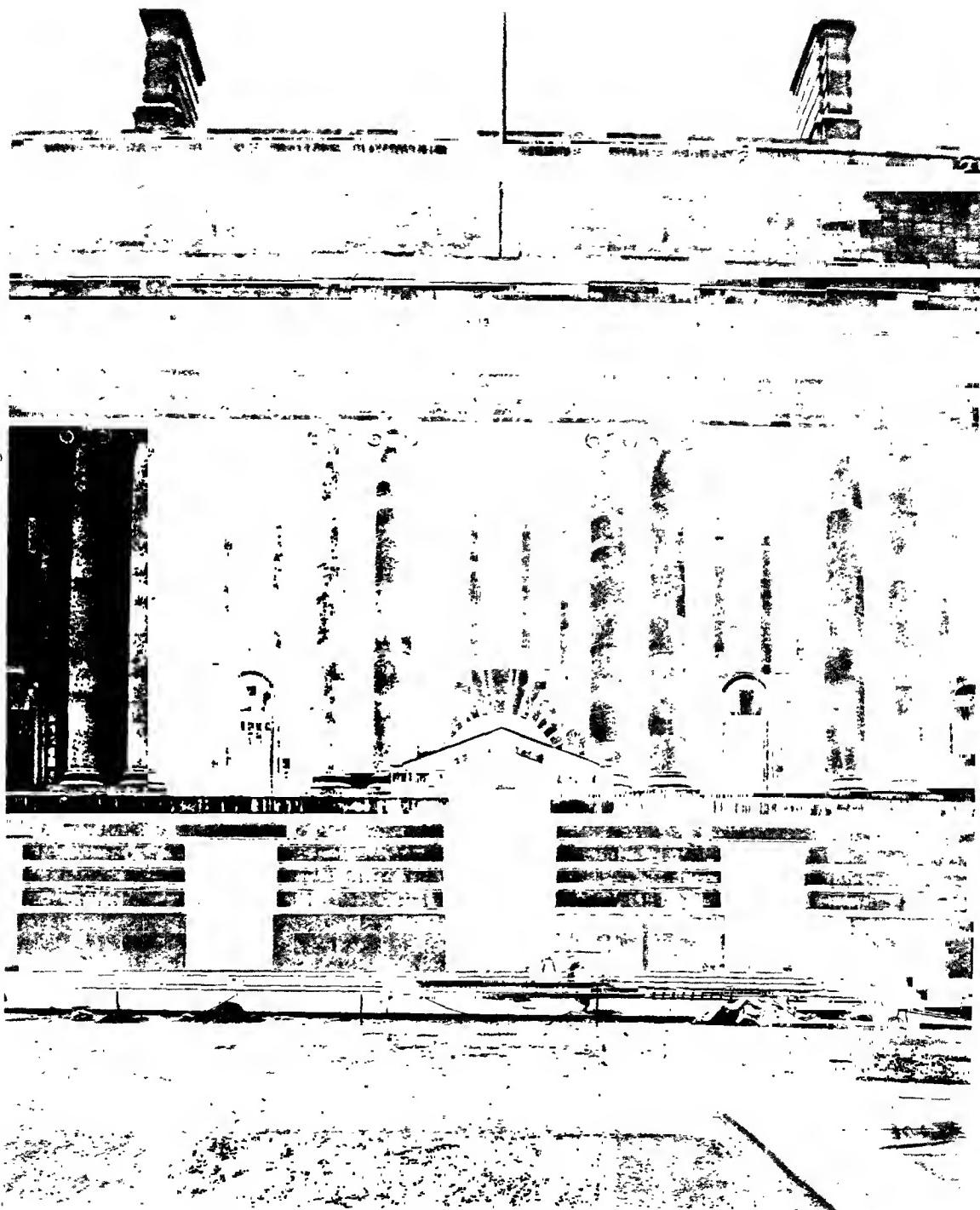
VIEW OF BUILDING FROM THE AIR

VIEW FROM THE SOUTH-EAST



THE RIVER CRESCENT AND MEMBERS' TERRACE





CENTRE OF BELVELERE ROAD FRONT, SHOWING MAIN ENTRANCE

THE NEW LONDON COUNTY HALL

intersected by the groins of the semi-circular windows which light it. The walls of the corridor and lobbies surrounding the council chamber, with their cross arches, are lined with white marble—a considerable amount of which is Pentelic, from the old Athenian quarry—relieved by bands of Sienna or Cipollino. The columns (which are freely used in the decorative treatment of this portion of the building) are of black Belgian, Bleu de Savoie, or Ashburton marble. The finish of the marble generally is that known as "eggshell" polish. The square voting lobbies (which occur north and south of the chamber) are top-lighted, and are lined with Indian laurel wood panelling up to the column screens. The principal floor corridor is vaulted in plaster, and lined below with oak panelling. It is 10 feet in width, and on office floors above 7 feet 6 inches.

COUNCIL CHAMBER.

With regard to the chamber itself, the plan is approximately octagonal, with three entrance doors and one private door for the chairman, and lighted by four long-shaped windows, above the high dado, in the shorter sides. Above the entrance doors occur spacious galleries (seating about 50 persons each), which overlap the lobbies outside, on the level of the chamber floor. Three galleries are for the public, and one for use of the Press. The height of the chamber is 55 feet, and its area about 3,500 square feet. The walls are lined with a high marble dado up to the gallery level—the plinth and capping are of black Belgian, and the filling between them of Greek Cipollino, from the Island of Euboea, the quarry of which, up to twenty years ago, had not been worked since the time of Justinian. Above this the walls have a plaster finish, the ceiling being of decorative plaster.

The columns supporting the lintols of gallery openings are monoliths of rare Veine Dorée marble, quarried over 5,000 feet above sea level in the Italian Alps. The seating is arranged on the usual horseshoe plan, stepped up from the central "well" of the floor, and the joinery is carried out in oak. The chairmen's seats on the dais are covered with a veneer of very old oak taken some years ago from a London excavation.

The architectural settings to the doorways of the chamber, with their canopies, are of black Belgian marble. Near by, in the northern cross-block, is situated the largest of the many committee rooms, intended primarily for education purposes, and

having accommodation for the public and the Press. By means of sliding screens it is divisible into three, as occasion may require. The large central division of this room has a barrel-shaped ceiling, intersected by the groins of the round-arched window heads, and the gallery openings. As with most of the rooms on the members' floor, it is lined with oak panelling, treated in a broad and simple way. The wood carving generally is by Mr. George Alexander, of Chelsea. The flooring throughout the building, apart from the two basement floors, is of oak blocks. Windows are fitted with steel casements.

EXTERNAL ELEVATION.

The style of the building may be described as of the severe phase of English Renaissance, interpreted in a modern spirit, with a considerable measure of freedom. The external frontages have a granite-faced substructure, above which they are faced with best Whitbed Portland stone, and the internal lighting areas with either white glazed or Arlesey bricks.

The crescent of the river front has been dealt with as the dominating external feature of the building. It consists of the Ionic order embracing four storeys, columns over 40 feet in height, and bold, sweeping, horizontal lines. The connecting chord across its terminating pavilions encloses the members' terrace, raised well above, and disconnected from the new embankment road passing in front of it, and a few feet lower than the principal or members' floor itself. At or adjacent to the northern end of the crescent are the members' refreshment rooms—at its southern end the reading room and library, with access from and to the terrace in both cases. Within the curve of the crescent block are contained the private rooms of the chairman and vice and deputy-chairmen of the Council, and the party whips, conveniently near to the council chamber. The view from the river front looking out over the water and the traffic of Westminster Bridge towards Whitehall, the Houses of Parliament, and the Abbey, commands a picture of one of the most beautiful and interesting aspects of London life. The height of the main floor of the building is 16 feet, while the office floors have an average height of 11 feet 6 inches to 12 feet, floor to floor.

The rectangular members' courtyard and its approach from Westminster Bridge front have already been referred to. The heavily treated, stone vaulted carriage way, with its granite base, has been ren-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

dered as one of the very important features of the building. Entering it from the public roadway, the vista terminates in the members' entrance doorway, finished with a semi-circular arched head, and flanked on either side by pedestals with bronze lamps. The façades of the four blocks of building giving on to the courtyard are treated similarly to the external fronts—Portland stone facings on a granite substructure, and steep-pitched roof with two stages of dormer windows.

ROOF.

While on this aspect of the building, attention may be drawn to a treatment of roof unusual in this country, the prominence of which is emphasised by the Italian roofing tiles, of rich red colour. The dormer windows are lined with sheet copper, as is also the fleche, the central feature of the crescent roof. The height of the main cornice of the building is, roughly, 90 feet above the foundation, the ridge of roof 130 feet, and the top of the fleche 190 feet. The structure embraces nine storeys, the two lowermost being the basement and sub-basement, devoted more particularly to storage purposes. Exclusive of these, and with the further exception of the first floor allotted to members and heads of departments, practically the whole of the building is required for the accommodation of the Council's office staff. The rooms for the latter are treated in a severely simple way, and, indeed, extraneous or unnecessary ornament is generally avoided in the treatment of the building.

The medical officer's department includes laboratories for various uses, and rooms for the medical examination of school children. Luncheon rooms for the Council's staff are provided on the sixth floor of the crescent block, with provision for the catering service and its staff above, and lift connections with the members' floor, basement larders and stores, and with the goods delivery road.

At the extreme north of the building, when it is eventually extended and completed, will be a roadway connecting Belvedere Road with the embankment, thus securing, moreover, a lighting area for the northern front. Off this roadway will be formed the goods delivery and service cartway leading into the internal area of the building adjacent to the boiler house (beneath the large committee room), by which means coal and other fuel will be delivered and the general supply of materials and stores maintained.

The figure sculpture in Portland stone and bronze, above the heads of the pavilion windows of the principal floor, is the work of Mr. Ernest Cole; and Mr. C. H. Mabey, of Vauxhall, is responsible for the architectural carving in stone.

INTERESTING FACTS AND FIGURES RELATING TO THE HEATING AND VENTILATION OF THE COUNTY HALL.

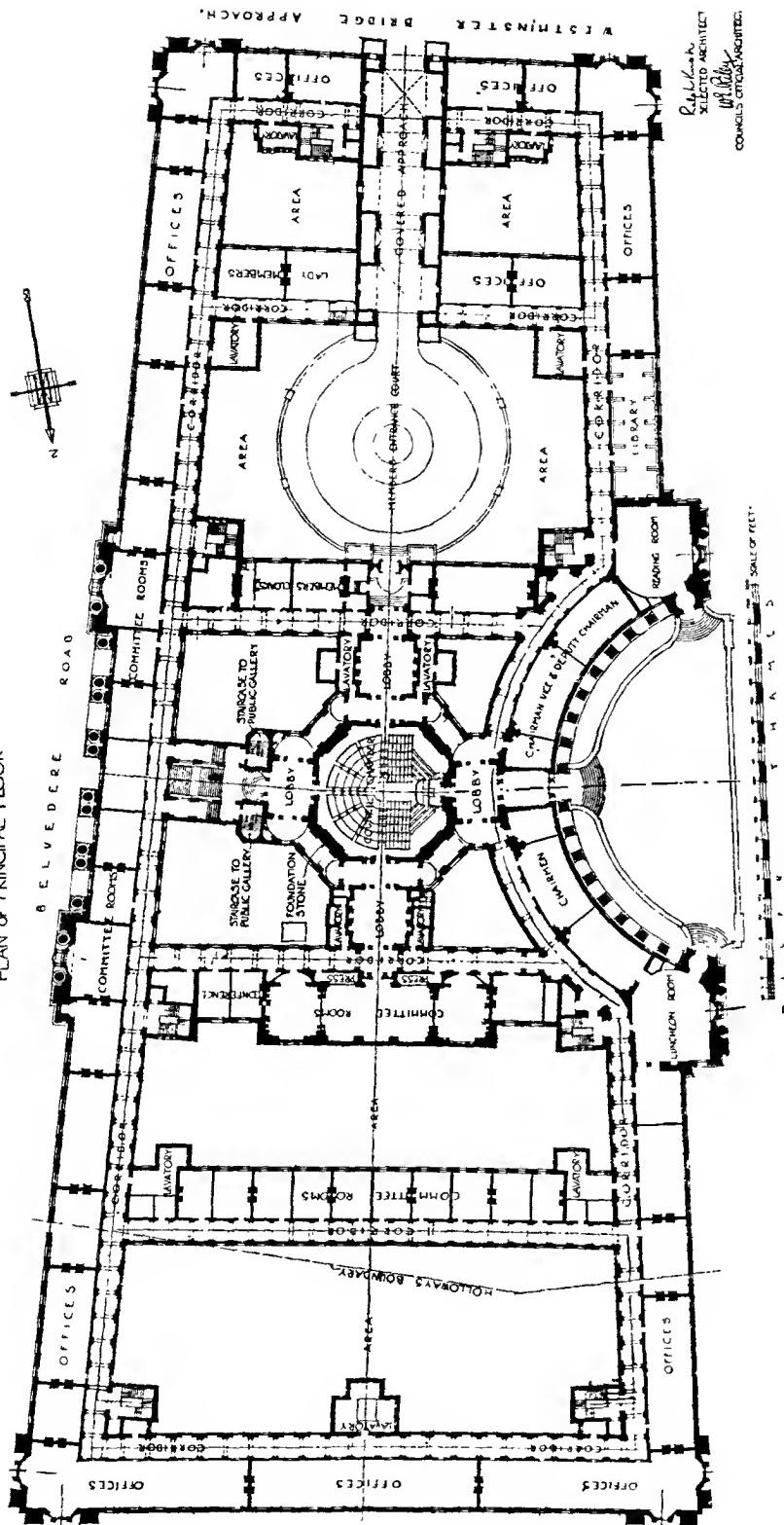
HEATING SYSTEM.

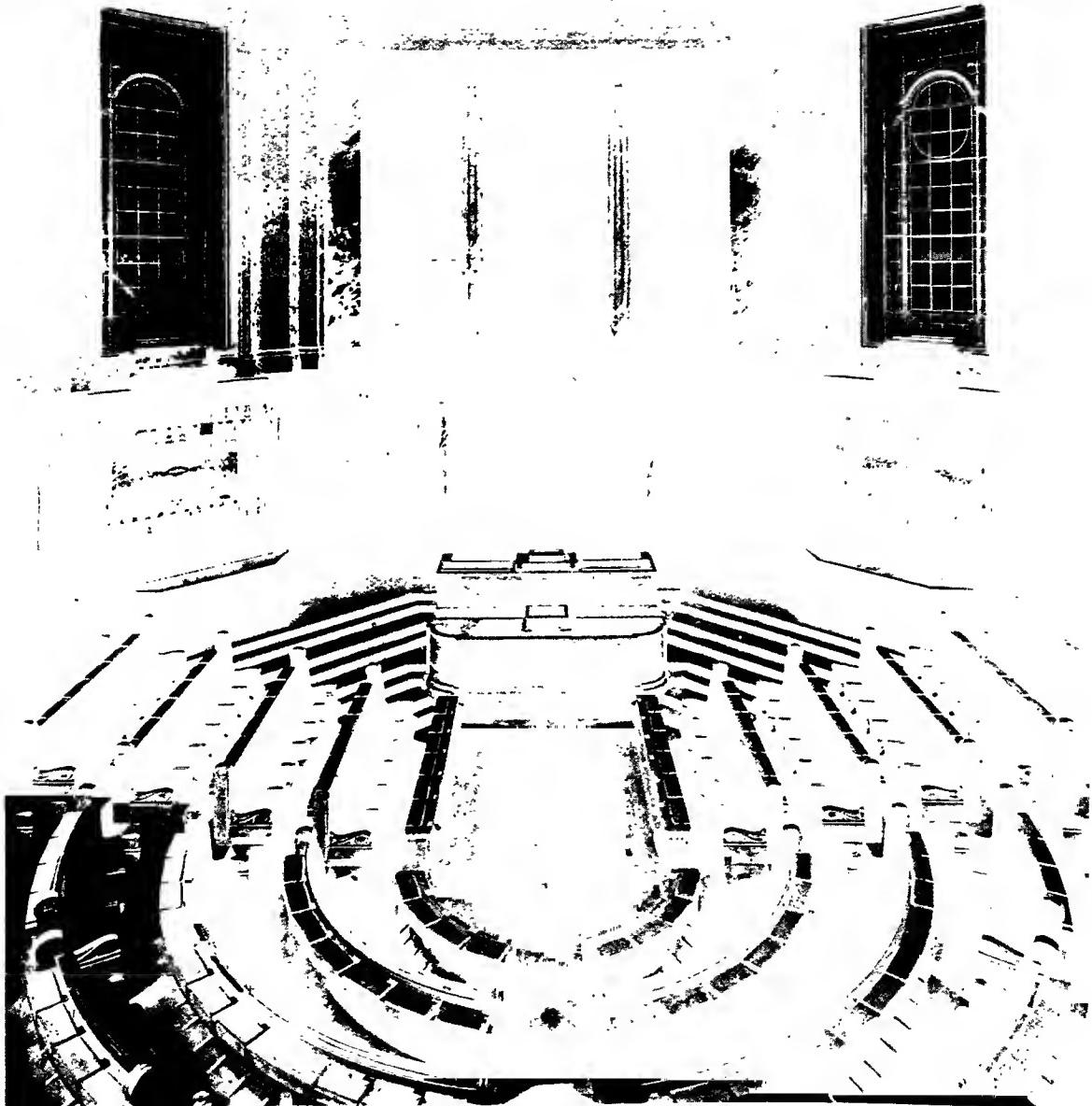
The question of the best system for heating the building generally was fully investigated by the architects over twelve years ago, with the result that a circulation of hot water through radiators was decided upon. The labour involved in the use of open fires for a building of such magnitude prohibited their general adoption, and only in exceptional cases have fires been permitted. The principal factors which led to a decision in favour of hot water rather than steam radiation were the comparatively low temperature of the radiating surfaces and the extreme flexibility of the system, permitting as it does of the heating medium being varied in temperature from 100° F. to 180° F., as required, to meet the outdoor conditions. Hot water radiators will therefore be found in nearly every room, and, wherever practicable, they are provided with a fresh air inlet of special design. Unlike most so-called fresh air inlets, these can be readily cleaned and can be controlled by the occupants of the rooms, who can see at a glance whether the inlets are open or shut.

METHOD OF CIRCULATING WATER.

Having decided upon the medium of heating, and having fixed upon a central position for the boiler house, consideration was given to various methods of ensuring that the heat was equally distributed throughout all radiators. Natural circulation by gravity being out of the question, a central pumping plant has been installed. Two electrically driven pumps capable of performing the whole duty have been provided, and there are two similar pumps driven by steam engines. The latter can be used when a failure in the supply of current occurs or when the exhaust steam can be economically used for heating the water supplied to lavatories. The water, when discharged from the pumps, which may be termed the heart of the system,

PLAN OF PRINCIPAL FLOOR





THE COUNCIL CHAMBER (UNFINISHED)

THE NEW LONDON COUNTY HALL

passes through the boilers, where its temperature is raised, and thence to a flow header 12 inches in diameter, which, to continue the analogy, we may call the "aorta." The flow header distributes the water to trunk mains, or arteries, leading to each of seven control chambers, where a further subdivision takes place. From each control chamber smaller pipes are carried round the adjacent section of the building, and from these the smallest pipes, or risers, are taken to the top of the building, with connections to radiators on each floor. If we regard the radiators as capillaries and the drop pipes and return circulation pipes as veins, the analogy will be complete. Every radiator thus receives its supply of hot water undiluted, and hence the heat distribution is as nearly perfect as could be expected. The difference in temperature between the main flow header at the boilers and the return header at the pumps is found to be only about 20° F., which was the figure allowed for.

OTHER METHODS OF HEATING.

Certain portions of the building are being heated by other methods, as follows :—

A few rooms requiring heat at the seventh floor are above the tanks, and are therefore being heated by steam radiators.

The sub-basement stores and strong rooms, which are below the level of the surrounding streets, are to be kept warm and dry by the circulation of air drawn in by three fans and passed over heating batteries to a system of distributing ducts.

The council chamber and education committee-room are dealt with specially, as described later.

BOILER HOUSE PLANT.

In the boiler house will be found a battery of six boilers of marine multi-tubular type, specially designed by the Council's chief engineer, and manufactured by Messrs. Davey, Paxman and Co., Ltd. Four of the boilers are used as hot water boilers, and together are capable of generating from 20,000,000 to 28,000,000 British thermal units per hour, according to the rate of firing. The remaining two boilers work as steam boilers at a working pressure of 60 lbs. per square inch. The duty of the steam boilers comprises the supply of steam for cooking, for use in the calorifiers which supply hot water to lavatories and serveries, for the sub-basement air heaters, and for the council chamber air-conditioning plant.

HOT-WATER SERVICES.

The hot-water service to basins and taps throughout the building is provided by two storage calorifiers adjacent to the boilers, each with a storage capacity of 1,500 gallons and a duty of raising 1,200 gallons per hour to 160° F. Circulation is secured by pumps similar to those used for heating. Except during the rush hour, it has been found practicable to heat the whole of this water by exhaust steam from the pumping sets.

All water used for the boilers and hot-water services is treated with lime in a water softener capable of dealing automatically with 1,000 gallons per hour, and in order to meet intermittent heavy demands, a 7,000 gallon reserve storage tank for softened water has been provided.

VENTILATION.

Before describing the special installation for dealing with the council chamber, it may be desirable to touch upon the ventilating arrangements in the main portion of the building. In most of the rooms extract gratings will be found near the ceiling on the side adjacent to the corridor. These gratings permit of the passage of air to ducts formed above the false ceilings of the corridors. These ducts are connected to vertical air shafts, of which there are ten, and effective natural ventilation will take place up these vertical shafts. Each shaft is, however, connected with a centrifugal fan, and when the conditions require it, mechanical extraction can be secured by intermittent running of the fans. The lavatories are provided with independent air ducts and fans, which are designed to secure an increased rate of interchange of air, so that air movement will take place from the building into lavatories. No restrictions with regard to the opening of windows are being imposed.

THE COUNCIL CHAMBER APPARATUS.

The installation for heating and ventilating the council chamber is one of the most interesting features in the building. A careful investigation was made with a view to ascertaining the causes of complaints which have arisen in connection with buildings such as the House of Commons and the Central Criminal Court. As a result, the opinion was formed that satisfactory conditions could be expected if the scheme embodied the following leading features :—

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- (a) A suitable position for the fresh air intake at a level below the smoke zone, but not low enough to be affected by dust and refuse from the streets.
- (b) A means of maintaining a suitable standard of humidity and temperature.
- (c) A means of maintaining a suitable temperature without overheating the incoming air.
- (d) The adoption of a slow upward current of air in the chamber.
- (e) An even distribution of the incoming air over the whole area of the chamber and at a low velocity.
- (f) The extraction of a small proportion of air near the floor level for the purpose of preventing dust and impurities rising from the floor.

A brief description will show how far the scheme has incorporated these features.

The air intake is situated at the fifth floor level, two of the circular windows on the river front having been used, with an alternative inlet from an internal area. The air passes down a vertical shaft of glazed brick to the air conditioning room where it meets a dense water spray issuing in a finely divided state from two banks of nozzles. This spray is maintained by a centrifugal pump producing any desired pressure up to 40 lb. per square inch. At this stage the first automatic control comes into action, in the form of a thermostat which can be set to maintain a constant temperature of the air leaving the humidifier by controlling the temperature of the spray water. This thermostat, by deciding the saturation temperature or dew-point, decides what the relative humidity will be at the temperature in the Council Chamber. As an illustration, assuming that the thermostat is set for saturation at 50° F., the relative humidity in the Council Chamber with a temperature 65° F. will be about 60 per cent. A key is provided to enable the thermostat to be set for other dew-points when required. The spray water can be warmed by mixing with steam or cooled by circulating through an ice tank, both of these operations being controlled by the thermostat. On leaving the humidifier, the air passes through "zig-zag" washing plates, where dust or water in suspension is eliminated, and then meets the heating batteries, the temperature of which is controlled partly by the thermostat in the council chamber and partly by maximum and minimum thermostats fixed in the main trunking. These all exercise control by passing

compressed air when required to close the steam valves. The maximum and minimum thermostats ensure that no air is heated above a fixed temperature, even when the council chamber instrument calls for heat, and that no air can enter the chamber below a comfortable minimum when cooling is required. In other words, they control the rate of warming or cooling of the council chamber. The centrifugal fan supplying the chamber is capable of dealing with 20,000 cubic feet of air per minute.

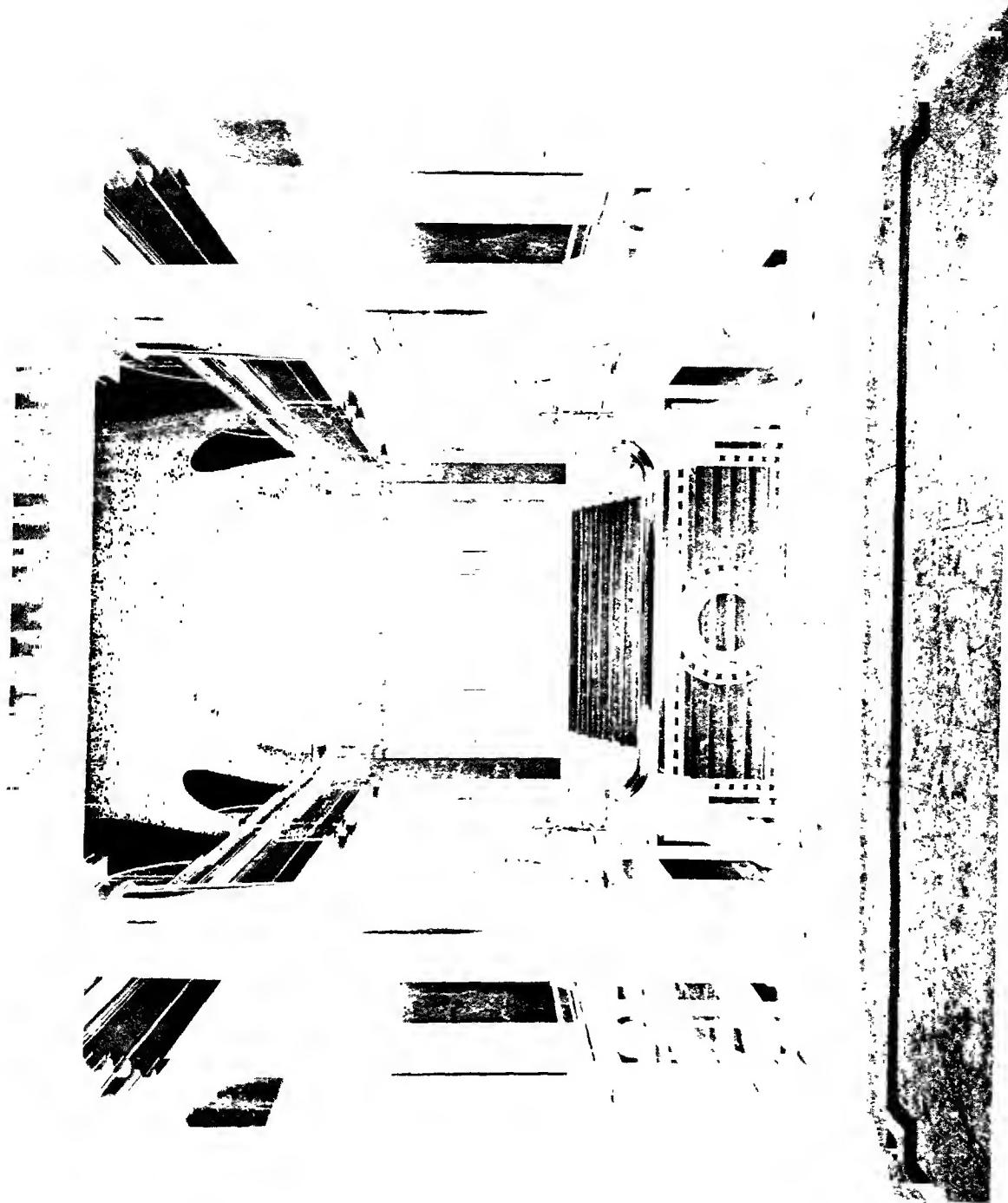
Below the council chamber will be found a somewhat intricate system of galvanised iron trunking, with many branches leading to the inlet gratings and other branches for the purpose of floor level extraction, which is effected by a separate fan. A novel form of individual control will be found in the council chamber, where members by operating a knob can either direct the air currents towards their own seats or vertically upwards through the back of the seat immediately in front of them.

The main extraction fan for the council chamber operates upon the ring of openings which will be seen in the ceiling. After setting the thermostats for various temperatures, it has been found that a temperature of 65° F., with a relative humidity of about 60 per cent., has been most acceptable to the members.

In conclusion, a few figures may be of interest.

Total number of radiators and coils ..	..	2,150
Number of valves about ..	..	6,000
Approximate length of piping .. miles		30
Quantity of water circulated to radiators per		
hour with two pumps running .. gallons	96,000	
Estimated consumption of Welsh steam coal		
per annum .. tons	2,500	
Specified temperature in offices ..	..	60° F.
Specified temperature in corridors ..	..	55° F.
Average number of changes of air per hour in		
offices with the fans running ..	..	3
Quantity of air supplied to each occupant of		
the council chamber (including galleries) with the fans at slow speed		
cubic feet per hour	3,000	
Maximum velocity of incoming air at the		
gratings in council chamber		
feet per second	2	

The sub-contractors for the main heating and ventilating installations are Messrs. J. Jeffreys and Co., Ltd., associated with Messrs. Richard Crittall and Co., Ltd., Messrs. G. N. Haden and Sons, Ltd., and Messrs. F. A. Norris and Dutton, Ltd.; and for the heating and ventilating installation dealing with the council chamber, Messrs. The Buffalo Forge Co., Ltd.



THE CEREMONIAL STAIRCASE, LOOKING TOWARDS THE COUNCIL CHAMBER

LARGE COMMITTEE ROOM



THE NEW LONDON COUNTY HALL

Discussion

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR.

The PRESIDENT : You will agree with me that Mr. Riley in reading an interesting Paper has exercised some self-restraint in showing the very necessary prose side of this great building. I confess that to many of us this must have been a useful restraint, because for my own part I have been apt to look upon the building in a more poetic light.

Mr. RALPH KNOTT [F.], who was received with prolonged applause, said : I do not think there is anything left for me to say. I should, however, like to say that I have had the very valuable support of Mr. Riley all through the long and arduous work, and of my own partner, Mr. Collins, who is here to-night. I thank you for listening so attentively to the paper.

Mr. F. R. ANDERTON (Chairman, London County Council), in proposing a vote of thanks, said : I must first express my regret that the person who ought really to have moved the vote of thanks is not able to be here to-night. I refer to the President of the Royal Academy, Sir Aston Webb. The regret you will share with me will be all the greater when I have to tell you what possibly some of you may know already, that the reason of his absence is illness in his family.

May I now say what great pleasure it gives me to be here to-night and to have the honour of proposing a vote of thanks to Mr. Knott and Mr. Riley for their extremely interesting Paper. I suppose there is some fitness in my being selected because, after all, I have had the proud privilege of being the first Chairman to preside over a meeting of the Council in the new County Hall, the honour of having sat and attempted to fill that magnificent chair which you have seen on the screen, and of having manipulated with some success the wonderful arrangement for controlling the heating of the room. I can assure you the results are as surprising as they are beneficial. I think all Londoners are proud of their new County Hall. We all of us owe a deep debt of gratitude to the man who designed it and to the men who have carried out the work.

I have taken a good many people over the building, and invited them to admire its many beauties, and have heard but few complaints. There are hypercritical people who will criticise anything, no doubt possibly with a view to showing their superior intelligence. Take it for all in all, London is more than satisfied with its new building. Something has been said and written in the Press about one feature of the Council Chamber—the acoustic properties. It is a strange thing, but I think most buildings, when people first use them, have their acoustic properties criticised. Certainly it was the case on a previous occasion when the London County Council moved into a new building that some members could not hear each other. When the London County Council

first started, the Corporation of London gave them the use of the old Council Chamber in the Guildhall. It is on record and in print that at an early meeting in that building a cultured Councillor said to a Councillor sitting next to him, who for the moment I must assume was less cultured, that the acoustic properties of the hall did not seem to be particularly good, whereupon the less cultured person replied, "Indeed, sir, I cannot say that as yet I have noticed anything offensive." I have not invented that story for the purpose of defending Mr. Knott's Council Chamber. Anybody can read that story in the *Recollections* of Mr. G. W. E. Russell, whom I strongly suspect of having been the cultured Councillor in question.

I have said something about people being hypercritical. You may be surprised to hear that it has come to my ears that certain members of the present Council miss the old building, and the extraordinary epithet they apply to the surroundings of the old building is that the new building is not so "homely" as the old building. All I can say, gentlemen, if that is true, if it be the fact that certain members have complained, those members must have exceedingly uncomfortable homes ! Apart from that, however, it is really amazing that there should be people who cannot feel the joy of living and moving and having their being in this beautiful building which has been designed and built for London. I have heard complaints from certain people that if its architectural proportions are grand the distances are great, and that officers, when they are summoned to a committee, have to walk along a great extent of corridor. But it is fitting that those who govern London's four and a half millions and look after their comforts should be suitably housed, and I contend that there is no space wasted, no unnecessary expense, nothing that is unworthy of London, or less than London deserves, in this great County Hall.

It has been a great pleasure to me to be here to-night for another reason. I have listened to so many technical terms that I feel the next time I have the pleasure of taking anybody round the Council Chamber and the County Hall I shall perhaps be able to do greater justice not only to its architectural and æsthetic beauties but to the practical services which it performs for London.

In conclusion, I have only to say that I want to express, as well as I can, although I feel I have done it inadequately, my deep sense of gratitude to Mr. Knott and Mr. Riley for what they have done for London ; and on this particular occasion to thank them for the admirable paper which Mr. Riley has read to us.

Mr. ANDREW T. TAYLOR (Alderman, London County Council), in seconding the vote of thanks, said : I should like to take this opportunity, on behalf of the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

London County Council, of thanking Mr. Knott and Mr. Riley for the work they have done for us. Mr. Knott has been extremely modest in his Paper to-night. He has said nothing about himself or about Mr. Riley. As with Sir Christopher Wren, you have to look around if you wish to see their monument. I think the new County Hall has been a great triumph for unlimited competition. It is a debatable point whether unlimited or limited competitions are the best, but here is an example in which unlimited competition has brought out a young man who had never previously built a large building, and who has suddenly come to the front with one of the greatest buildings erected in London for a century. It reminds one of the great competition for Sir Walter Scott's monument when a working mason came out first. I refer to Kent, who produced a monument surpassed by nothing, either ancient or modern. It also reminds one of a famous competition in olden times for the celebrated dome of the Cathedral at Florence, when Brunelleschi won the competition. As he was a young man the authorities were not sure whether they could trust him with so great a work, and saddled him with Ghiberti. They did their work very well together, but you will remember that Brunelleschi feigned illness and refused to see anyone. When the workmen went to Ghiberti for the necessary instructions they found him unable to give them. Still Brunelleschi remained in seclusion, and did not appear again until it had been decided that Ghiberti's co-operation was no longer necessary.

I have not heard that Mr. Knott has taken such drastic action with regard to Mr. Riley. I understand, on the contrary, that they have worked together in the most perfect harmony, that they have been mutually helpful to each other, and I am extremely glad that this relationship has been maintained.

In the New County Hall we have a building which, I think you will agree, is extremely suited for civic municipal architecture. It has nothing in common with the great Hôtels des Villes and other buildings on the Continent. I do not think it has derived any inspiration from those old buildings. You remember the Hôtel de Ville at Paris with its magnificent Salle de Peintre and other magnificent chambers. We have not attempted anything of that kind. I do not think it can be said that we have wasted the ratepayers' money on unnecessary or superfluous ornament. The hall is intensely utilitarian and yet it has that beauty which comes from simplicity and perfect usefulness. One is reminded in some respects, when one sees the massiveness of the building, of Blenheim and of that famous epitaph of Dr. Evans on Sir John Vanbrugh :

" Lie heavy on him, earth ! for he
Laid many heavy loads on thee."

I am afraid that will be an epitaph for Mr. Knott. We have a great national inspiration and strength in this building. It will last for hundreds of years. I desire, without saying anything further, to thank both Mr. Knott and Mr. Riley for their paper, and to say we are perfectly satisfied with the splendid building. We think that London should be satisfied, too, and trust that it will be an incentive to us to administer the services of London with greater assiduity and care than before.

The PRESIDENT : There can be no doubt as to the admiration which we all feel for the building which has been described, and no doubt as to our gratitude for the Paper in which it has been described. I therefore think I should be interpreting your wishes if I proceed at once to put the vote of thanks.

Mr. W. E. RILEY [F.] , in returning thanks, said : The monotony of my voice must by this time have come home to you. You have had a good solid hour of it, in any case, and I feel a little jaded. But I may tell you what the object of this Paper has been. If you look back in the architectural records of the Royal Institute you will find no really useful account of the building of the Houses of Parliament or even a very useful and lucid account of the building of the Law Courts. It was intended that this Paper should put on record—that is the reason you had a good deal of detail which you probably did not want—the true history and meaning of this gigantic building. I hope that when you come to read it in future in the JOURNAL you will bear that in mind and give the credit of what interest it possesses to that view which has been taken of the case.

Mr. BERESFORD PITE [F.] : Will you forgive a remark ? I think it is fitting that on this occasion the Institute should express their congratulations to the London County Council upon achieving such an important and momentous work. The inspiration to remove their building to the other side of the river and establish a precedent there is one which carried unanimity of approval and consent among architects. Glad as we are to congratulate our confrères on their successful conduct of so difficult and knotty a job, the whole profession will feel that we ought to express to the London County Council our appreciation of their courage and their success in providing London with a monumental civic building.

The PRESIDENT : . . . I shall have great pleasure in putting the motion from the Chair, in which case no seconder will be required.

The motion was carried.

Decorative Art at Burlington House

BY HENRY M. FLETCHER [F.]

WE are still a stout-hearted race. Nine hundred and forty-eight separate exhibits, many of them show-cases containing twenty and thirty objects apiece. Is it fair to this great body of workers that we should skip through the results of several years' work in an afternoon? Or is it fair to us that we should be expected to digest this Gargantuan feast in two or three visits? Three minutes' contemplation of each object would fill a working week of forty-eight hours. Must we still suffer exhibitions on this scale? One of these rooms would hold as much delight as you can appreciate on a single visit; thirteen are more than the most ardent spirit can bear without satiety. When shall we learn to prize quality above quantity, to see that two exhibitions every year, with a hundred things in each, are better and pleasanter and make for more continuous progress than one of a thousand things every five years? But we still need to be summoned by drum and trumpet; our meals are simplified and civilised, but our art we like to swallow *en masse*, to gorge like the boa constrictor and then dismiss it from our thoughts.

One comfort we may take from this exhibition—that there is a great and perhaps increasing number of men and women in England to whom civilisation means something more than machinery, who are not content with the mechanical reproduction of trivial sights and sounds by cinema and broadcasting, the mechanical hurry of the motor-car, who are driven to produce things for the delight of themselves and their fellow-man by skill of brain and eye and hand. It is all to the good that the multitudes of machine-worshippers should have the chance, whether they take it or no, to realize what civilization is, and thanks are due to the Royal Academy and its architect-president for laying it before them.

The movement set going by Morris and the founders of the Arts and Crafts Society has spread far and wide. Painters have come under its influence, and see that to be a picture is not the be-all and end-all of every picture. We may go further, and say that a painting is not decorative merely because it is conceived and executed in a certain manner. The very word "decorative" implies the act of decoration, and how can such act take place unless there is something—some place, some wall, some room—to decorate? At every turn in this exhibition one feels the heightened value of work which has been carried out to fill a definite place, and how, where a key photograph has been added, as in Mr. Clausen's beautiful scheme for the Hall at High Royd, the intention of the designer becomes clear and things are made plain which no mere

study of cartoons would illuminate. The conclusion is evident—that for the development of any sound tradition constant practice in concrete surroundings is needed. The impulse is here, has arisen spontaneously among painters, and is therefore not artificial but vital. At present it is tentative, and will die if it be not fostered. Eighty years have passed since the last impulse was given by the decoration of the Houses of Parliament; if we let slip this opportunity another eighty may pass with nothing done. It is for architects and all who build to see that, so far as they have the chance, they help the painters to bring to fruition the germ that may one day grow into a great and noble art.

Not that all is tentative in the collection. There is a room full of Alfred Stevens's incomparable cartoons to set a standard, and to illustrate by way of warning the waste of genius that came to pass in the eighty desertyears. There is actual achievement in Mr. Clausen's work already mentioned, as nobly felt and as finely decorative as anything carried out in our own day, and there is potential achievement on a sumptuous scale in Mr. Sims's "Crafts," with its difficult foreshortenings tackled for the sheer enjoyment of the problem. Before Mr. Goetze's Decoration for a new Vestry Screen one can only, like Milton's stars, with deep amaze stand fixed in steadfast gaze.

The experiments in true fresco are particularly interesting, and, considering that examples of this medium have survived in churches from mediæval times, one may hope that the experimenters will go on and prove once more that rightly handled it will overcome the drawbacks of our climate. It is disturbing to notice that most of them have cracked; but, after all, fresco is not naturally mobile, and one of the largest—Mr. Ernest Jackson's "Eve," a delightful study in cool tone—is intact.

In the Arts and Crafts section, as indeed in one's travels through town parishes and country villages, the first thought that comes to the mind is one of thankfulness that the widespread revival of fine lettering preceded, if only by a year or two, rather than followed the pressing need for its use occasioned by the war. The honour rests with such pioneers as Edward Johnston, Graily Hewitt and Eric Gill, but their influence, making for fine form and legibility, has permeated everywhere and saved us from a thousandfold greater disaster than the lettering on the memorials of the Boer War. Mr. Graily Hewitt's Rolls of Honour for Eton and the R.A.M.C. are only two of the best among many where choice is difficult.

One looks in each craft for some freshness of idea or treatment, some development along traditional lines,

but also out of traditional lines, into modern expression. We find it in lettering. We find it in furniture and cabinet-making, where, although Ernest Gimson's work remains unsurpassed, it is being carried on by Mr. Heal, with his sideboard and bookcase, Sir Robert Lorimer, with the combination, perhaps not wholly brought into harmony, of flat carving with the structural forms of Queen Anne's time, Mr. Laurence Turner, Mr. Armitage and others. Where we miss it is in stained glass. When other crafts have in the main freed themselves from archaeology, why must this, one of the loveliest, remain so obstinately tied to mediæval forms? Mediæval methods are probably so well suited to the material that they cannot be departed from without risk, but that is no argument for sticking like limpets to mediæval subjects, costumes and architecture. If Mr. Walter Bayes can translate a rolling-mill or a steam-hammer into a mural decoration, could not Miss Gwynedd Hudson have found an inspiration for her otherwise charming hunting scenes in a meet of the Quorn?

In sculpture and carving there is freshness in Mrs. Stabler's charming stone and cement figures, in Mr. Stabler's bold leaden eagle and St. George in glazed faience. Mrs. Jenkin's stone "Labourers in the Vineyard," cut with square edges in the Assyrian manner, and "Swamp Girl" show great skill in modelling with hardly perceptible relief, and Mr. Gilbert Bayes's screen panels of wood, pierced and coloured, hold promise of further development. Mrs. Clay's little choir-stall musicians and Mr. Simmonds' squab and humorous duck and drake have a life in them that puts to shame many of the larger works of larger names.

Other things that should not be missed are Mr. Paul Cooper's beautiful shagreen and silver boxes, and Mrs. Christie's admirable needlework.

R.I.B.A. PUBLIC LECTURES.

Arrangements have again been made this year for holding a series of Public Lectures in the Large Gallery of the Institute.

The Lectures will be given in the afternoons on the following dates:—

- Feb. 22. Sir Ryland Adkins (subject to be announced later).
- March 1. Mr. J. A. Gotch. "A Note on the Life of Sir Christopher Wren."
- March 8. Mr. Walter Bayes, A.R.W.S. "Architecture and Painting."
- March 15. Mr. H. S. Goodhart-Rendel. "Architecture—a Necessity or a Luxury?"
- March 21. Lord Sumner. "Architecture and the Public."

Mediæval Wall Paintings

BY A. R. POWYS [A.]

The recent correspondence in the *Times* on this subject gives me the opportunity to restate two facts about the discovery and protection of wall paintings which are still often overlooked by those who are concerned with them.

First as to their discovery: Wherever mediæval plaster remains in a building it is likely that wall paintings exist. Such plaster was commonly laid on roughly with an uneven surface which catches the dust readily, has often undergone much patching, and is apt to look untidy in these days. Often parts of the wall have been subjected to many years of damp, penetrating from leaky gutters, eaves shootings, or down-pipes. Usually successive coats of limewash, each, it may be, decorated with pictures or texts according to the custom of the time, were applied as every preceding coat became defective through scaling, or because of some structural alteration. The first precaution to be remembered when dealing with such plastered surfaces, however shabby they have now become, is that replastering and removal of plaster should not be ordered until a careful examination has been made, and absolute certainty is reached that there are no traces of paintings either on the plain surfaces or in the window jambs. In itself also, the removal of mediæval plaster is indefensible. The second precaution is that no uncovering of wall paintings should be undertaken until all sources for the penetration of damp have been removed. This obvious piece of common sense is too often neglected, and is the cause of the loss of paintings. The uncovering of wall paintings should not be undertaken unless or until the building in which they are is structurally sound throughout.

When a wall has received successive layers of decorative treatment it is seldom possible to recover any but the original one laid on the plaster itself; for each successive picture or pattern is painted on a wash which does not adhere to that below as firmly as the original painting to the original plaster.

Thus at Little Hampden in Buckinghamshire, there were on the north wall three successive St. Christophers, and thereupon both black letter and roman texts. Each painting subsequent to the first, which was, if I remember right, of the twelfth century, had been re-done, because that which preceded it had scaled, and so become patchy. And each successive painting was not only liable to failure owing to its own scaling, but also to that of those on which it was laid. Thus it was found possible only to preserve the remnants of the first picture, which had been damaged by the structural alterations which the walls had undergone.

When uncovering is being done it may be well sometimes to begin with a few feet of some less valuable part, and treat that alone, after taking the best advice, in order to make actual test of the method proposed, rather than to do the whole work at once. When the subject of a wall painting is known, or when enough evidence exists to lead to a fair certainty on that point, study should be made of the contemporary drawings of the same subject, as this will give useful indication of what to expect. Again, it is desirable when a painting is being uncovered to remove the thickest of the limewash from the whole area to be treated, so that an idea of the arrangement of the whole work may be known before close attention is given to it.

Much might be written about the tools to be used in removing limewash, about the use of glass to keep people from rubbing against the lower parts of these pictures, and about the best sources of information for the study of the subject, but enough has been indicated here.

It is desirable that a camera should always be at hand with which to photograph each stage of the uncovering. In addition to photographs, full-size coloured records should always be made.

Secondly, as to preserving the paintings. This is a matter on which more mistakes are made than on any other connected with the subject. It should be remembered that there is no sovereign preservative suitable to all cases alike, that varnishes and sizes are often harmful,* that it is very much better to apply no preservative than the wrong one, that whenever a preservative is under consideration its possibilities of harming the picture should be studied fully, and until it is certain that it has none it should not be used. It is not sufficient that it should make the painting more brilliant, or dustproof, or proof against damp. It is desirable to do these things, but with these qualities most preservatives carry others that cause serious injury. Knowledge on the subject of preservation is comparatively small, though each year shows an increase in it. Paintings do not suffer any hurt by being left beneath a layer of limewash. I would therefore advise those who have the care of them to proceed with self-restraint.

I think I am right in saying that attempts to repaint these pictures will never again be made. For the fact that this phase is past, we should be thankful to the work of those men, which was at the same time the product and cause of that wave of feeling which has brought about so great and good a change in our attitude toward "Restoration."

* I would refer the reader to a letter by Mr. Noël Heaton which appeared in the *Times* of 11 January 1923.

Tints and Towns

A PLEA FOR COLOUR IN CITY LIFE.

By RT. HON. J. R. CLYNES, M.P.

When St. John saw the New Jerusalem coming down out of heaven, he saw it in colour; the jeweller as well as the architect and the mason had been concerned in its building. Each of the gems which formed the foundations of its twelve walls represented a specific tint, from the reddish brown of the sardius and green of the chrysolite to the yellow of the topaz and the deep azure of the amethyst.

Outside the limits of the glowing Orient, cities in whose decorative scheme colour takes a definite place are rarely encountered. Two exceptions will jump to the traveller's mind—Venice, with the greens and blues and scarlets of her jalousies and the pale pink of her palazzi; and Moscow, which has, I am told, a dazzling kaleidoscope of roofs in red and brown, blue and green, broken by sapphire and emerald and gold cupolas and gleaming white minarets—beauties, by the way, that I am not likely to be invited to view.

The English town of Tudor times must have presented a gay and vari-coloured aspect. The weathered red tiles, timbered fronts, and painted escutcheons and shop signs gave to the narrow, cobbled thoroughfares a many-tinted background. It was only with the arrival of the industrial revolution and crude utilitarianism of the nineteenth century that the love of colour was crushed out of the British people and our large centres of population became the leaden-hued and depressing huddle of sombre buildings we know too well.

Hints of a reaction against the grim domination of stone and stucco and dingy brick are happily beginning to appear. Here and there an oasis of ivory white terra cotta or tinted vitreous brick breaks the monotonous line of smoke-begrimed buildings. In some of the newer erections decorative designs in coloured wall-facings introduce livelier hues and suggest possibilities of varying and brightening the scenes of our daily toil.

As yet, however, little has been achieved in the direction of formulating definite colour schemes in town planning or improvement. With the ingrained national distrust of the bolder use of colour, British architects and builders are slow to realise the remarkable diversity in decorative possibilities which modern processes for the production of ceramics have placed in their hands.

A skilful gardener plans his herbaceous borders with the deliberate design of producing at different seasons certain pleasing combinations of colour. Why should not the architect, who is called upon to prepare plans for the erection of large blocks of buildings or to lay out a new residential area, take a leaf out of the gardener's book, and set himself to combine with stately and harmonious proportions a colour scheme that will enhance

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the beauty of his work? One can imagine a combination of greys and yellows, browns and greens, blues and whites, or even gradations and shades of a single colour, in the façades of a thoroughfare, that would perceptibly mitigate the dreariness and depression which we have mistakenly come to believe to be inseparable from the grey skies of our island home.

Scientists and medical experts more and more emphasise the curative and health-giving properties of sunlight. Unfortunately in these northern latitudes an adequate supply of sunshine cannot be turned on at our will. But its absence may be in some degree counterbalanced by utilising every opportunity to bring into play the next best thing—those colours which delight the eye and subconsciously infuse man's being with lightness of heart and gaiety of spirit.

No inconsiderable part of the depression and listlessness which characterise the life of the workers under the monotonous conditions of modern industrialism may be traced to the drabness and absence of light and shade in their environment.

If our streets and buildings presented to the citizen's eye the variety and beauty which spring from æsthetic employment of harmonious colouring, the whole tone of our industrial population would be beneficially affected. A light-hearted and cheery temper would be stimulated, which would not merely lighten the burden of the daily task and eliminate a good deal of the friction, but insensibly educate eye and brain, and restore to our people some measure of that artistic perception of which they were robbed a hundred years ago by the crudities of the industrial revolution.

The Architecture Club

EXHIBITION OF PHOTOGRAPHS AND MODELS.

One of the most important activities of the Architecture Club for the present year will be an exhibition of modern English architecture entitled "Twenty Years of British Architecture." The Duke of Westminster has kindly lent Grosvenor House for the purpose, and the exhibition will be open to the public from March 6 to 24 inclusive.

The exhibits will consist of photographs (of a large size) and models of executed works, as it is felt that these will more correctly present the true character of the buildings than drawings or diagrams, and will appeal more widely to the public. A somewhat novel feature will be the projection on a large scale of photographs of buildings by means of lantern slides in the Great Gallery of Grosvenor House. It is also hoped that it will be possible to arrange a series of public lectures on architectural subjects.

An interesting exhibit will be a collection of models, from numerous historic examples, illustrating the development of the British house from the earliest times to the present day.

The Committee of the Architecture Club feel that while there are numerous exhibitions of painting and sculpture, comparatively little attention has been given to architecture, and that the recognition of architecture as a fine art has, in consequence, been limited to architects themselves and a small esoteric public. The attempt is, therefore, to place architecture in its right perspective so far as the public appreciation of art is concerned.

Review

ARCHITECTURAL BUILDING CONSTRUCTION. By Walter R. Jaggard, F.R.I.B.A., and Francis E. Drury, F.I.S.E., M.C.I. In two volumes.

It is to be feared that most architectural students look at the subject called Building Construction much as youth in general regards bread and butter—or should one in these days say margarine? That is, as something they are told is good for them, but which they do not find very appetising. If, however, anyone happens to be, unlike the child in *Punch*, that sort of hungry, there are now plenty of dishes of bread and margarine to choose from: for of the making of books on Building Construction there is no end. And for the most part the contents are all sound and wholesome. The ingredients may to a limited extent be variously proportioned; brickwork being predominant in one, joinery in another, and so on. One may have a stronger flavour of the workshop, and another of the lecture-room or the drawing-office: but beyond that there is not much variety. All are just bread and margarine, and the frivolous will look in vain for jam.

In all such books, in fact, a large part of the matter must be the same: for it must be concerned with the ordinary, everyday construction of ordinary, everyday buildings, of some ninety per cent. or more, that is, of all those erected. And the methods of constructing such buildings, and most of the materials used in them, have long been standardised, and are known to everyone in any way concerned with building: so that nobody can have much that is new to say about them. Even to improve the method of presenting the matter, its arrangement, or the clearness of statement and illustration, is by no means easy. These things have been very well done already. It must, therefore, have required something like the headlong valour of a V.C. to bring out a new book on Building Construction in 1916, in the midst of the war, when we all had other things to think about. But we were all heroes then—or thought we were—and Messrs. Jaggard and Drury did it.

CORRESPONDENCE

They met the difficulties referred to in more ways than one : but first and foremost by relating a large proportion of the details of construction which they describe and illustrate to certain designs for buildings which, if they would not let at "economic" rents, are well adapted to exhibiting good standard methods, and many of them. The general drawings for these buildings are shown on loose sheets to be spread out before the student as he reads, and at other times folded and kept in pockets in the covers of the volumes. The plan seems an excellent one provided the reader will take the small amount of trouble required to refer to the sheets, and find and study the position of the detail : for it takes the student one step at any rate from theory in the direction of practice, and will probably appeal to him if he happens by chance to be a real seeker for knowledge. Another very attractive feature of these volumes, and one that will appeal to architectural students, is the excellence of the illustrations. Some small part of the credit for their clearness may perhaps be given to the highly glazed paper on which they are printed, but they are in any case beautifully drawn. Many, indeed, are charming examples of pen-work, almost worthy to be compared to the delightful illustrations in Viollet-le-Duc's works—and, if less delicate, more reliable : for that talented Frenchman was accustomed to draw a little on his imagination in the rare cases in which accurate information failed him. There is no sign that Messrs. Jaggard and Drury have done that. If the standard reached by the text is not so uniformly high as that of the illustrations, inasmuch as it occasionally condescends to adopt the style of a specification, it is nevertheless always admirably clear and to the point : and there is not, as a general rule, that undue anxiety to spare words that has marred so many books on the subject from Vitruvius onward. The practice adopted of leading up, by preliminary explanation in successive stages, to technical terms and definitions, instead of the more common one of throwing them at the head of the reader first and explaining afterwards, is especially to be commended. It is probably in part due to this practice that the chapters headed "Structural Design" form an exposition of the mathematics of construction that is very unusually clear and easy to follow.

It is not so certain that the arrangement of the matter is an improvement on previous practice. Brickwork seems to occupy an undue proportion of space, more than twice as much as stonework—the authors, ignoring the modern subdivisions of the trade, call it masonry—and nearly twice as much as joinery, including door and window ironmongery. Steel and iron construction, including such things as metal casements and railings, is fully and admirably dealt with ; but there is nothing at all about sanitary plumbing and fittings, water supply, heating and hot-water work, painting and glazing—except patent glazing, artificial lighting, and so on.

It must be assumed that these things are included in the "large field of advanced work" which the third volume is to cover : but some of them seem tolerably elementary. The tools of the trades are nowhere mentioned ; and materials are only sketchily described ; the student being advised to obtain an intimate knowledge of them "by personal examination and experiment." This is excellent advice which should be more systematically followed than it often is : for only so can he learn to distinguish good material from bad, or "prepare himself," in the words of the preface, "to foresee the difficulties of the artisan in realising his conceptions."

These volumes, notwithstanding the correlation of details with general drawings, have a much stronger flavour of the lecture-room than of the workshop or the architect's office ; but perhaps that is inevitable, and not unsuited to the modern method of teaching architecture.

FRANK T. BAGGALLAY [F.]

Correspondence

CONCILIATION BOARD OF ENQUIRY IN FIRST INSTANCE.

To the Editor, JOURNAL R.I.B.A.—

SIR,—There is no occasion to enlarge in these pages upon the difficulties incidental to all building case actions at law. They are already manifest to all architects who know well enough what a misfortune it is to be mixed up in disputes with their clients, haggling over personal questions or professional charges. I suppose very few at some time or other have not found themselves thus involved and have suffered accordingly. Bad cases of this character I have met with and advised upon, helping to mitigate trouble as far as might be. My experience in the High Courts of King's Bench, and even before official arbitrators, demonstrates the risks run by litigants on both sides, largely because of the misconceptions often readily arising over technical details which the legal mind cannot grapple with, and also because counsel seem unable to appraise the relative values of conflicting expert evidence.

The object of this preamble is to serve by way of introduction to a proposition that the Royal Institute of British Architects, with the advice of the Practice Committee, should consider the possibility of forming some sort of professional, and in that sense a lay, Conciliation Court of the first instance by consent. I do not contemplate exactly Conciliation Courts such as have been long established by law in Denmark and also are found in both France and Italy in a modified form. My suggestion seems to be covered by the words of St. Paul's question to the Corinthians : "Is it so that there cannot be found among you one wise man who shall be able to decide between his brethren ?"

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Lord Brougham more than a century ago proposed the formation of such elementary legal courts, and he pointed out "how much money and temper might be saved if, as a condition precedent to litigation, disputants were bound to meet in the presence of a trained and impartial third person holding the dignity of a judicial office who could exhibit to them the pitfalls of litigation and the advantages of a just and peaceful settlement."

The idea of writing to the JOURNAL was suggested to me by reading *What the Judge Thought*, by His Honour Judge E. A. Parry, just published. "The parties in the early stages of the quarrel should be induced to come before a conciliator by themselves unaccompanied by lawyers, and the business done to be confined to exploring the avenues of peace to see if any honourable alternative to litigation can be found. If no conciliation is possible, then the case necessarily will have to proceed." In Norway, by employing such informal preliminary investigations before tribunals of conciliation, 75 per cent. of the cases presented have been disposed of to the satisfaction of both parties, and in Denmark the percentage is given at 90 by Heber Smith.

Abraham Lincoln, a great legal reformer, warmly advocated similar common-sense methods. Judge Parry is of the same mind, but he agrees that English-speaking people move slowly, and, he adds, lawyers and laymen fail to encourage conciliatory courts seriously because such reforms may cut down fees.

The Judge concludes his chapter thus : "Blessed are the Peacemakers."

Are vested interests so hide-bound that nothing can be done? Must we confess that? Is the idea too Utopian for practical politics? Abraham Lincoln advised his pupil friend : "If in your judgment you cannot be an honest lawyer, resolve to be honest without being a lawyer."

Criminal cases, though differing from civil actions, equally concern the frailties of human affairs, and the experience of Sir Richard Wallace, Chairman of the County of London Sessions, goes far to support what is urged by Judge Parry, as above stated. At this year's conference of probation officers in London, Sir Richard said that "out of 100 probationers for years past the average of those who have never returned to criminal life and never come back to prison had been 96." Besides thus saving offenders from sinking down into degradation, "the effect upon the general crime triable at the Sessions has sunk 40 per cent. in London below what it was before the Probation Act came into operation." Properly constituted probation officers capable of persuading people from embarking upon litigation in building cases might save a world of trouble to all concerned, and also ensure happy settlements on the lines I have indicated.—Yours faithfully,

MAURICE B. ADAMS [F.]

WHO IS THE ARCHITECT?

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Can nothing be done to drive it home to the daily Press that one of the most interesting things in connection with a building or work of craftsmanship is the personality of its author?

Time after time we have descriptions of opening ceremonies in which the names of the dignitary officiating and all the bigwigs present, the owner or donor, possibly even that of the contractor, are given, together with an account of the materials, cost, history and purpose of the building or object; but among all these details we look in vain for information as to the man to whose brain and hand we owe it all. In the case of a picture, a statue, a book or a musical work this omission would not occur.

In the last few weeks two glaring instances have occurred in the cross presented to Westminster Abbey and Messrs. Peter Robinson's new premises.

W. H. WARD [F.]

THE LAW OF BUILDING OUTSIDE LONDON.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Looking at the JOURNAL for 13 January, which contains the discussion on my paper of 18 December upon "Building Law," I see from your excellent report of my final speech that I was guilty of two slips which it may be worth while to correct, lest they puzzle anyone sufficiently interested to follow up my remarks.

In the rough notes I made during the discussion, I seem to have omitted one of Mr. Alban Scott's five points, lettered (a) to (e) at page 151 of your report. Therefore at page 153 I ought to have said that his first four suggestions (not three) were covered by the Departmental Committee's recommendations, and that it was the fifth (not fourth) which they considered and rejected. The second slip I made lay in putting this rejection, from memory, in paragraph 58. The true reference is 54.

If you can find space for these slight corrections you will increase my obligation to the JOURNAL and the Institute.—Yours faithfully,

A. N. C. SHELLEY.

The February number of *Architecture*, the Journal of the Society of Architects (monthly, 1s.) will be almost entirely devoted to the Wren bicentenary. Among the contributors on this occasion are J. St. Loe Strachey, John Freeman, Sir Lawrence Weaver, K.B.E., Professor Reilly, Charles Marriott, Trystan Edwards and the American architect Egerton Swartwout. There will also be a number of unpublished portraits of Wren, and several reproductions after original etchings by Frank Brangwyn, R.A.

VISIT TO FARMER AND BRINDLEY'S

ART STANDING COMMITTEE.

VISIT TO MESSRS. FARMER AND BRINDLEY'S WORKSHOPS.

The visit arranged by the Art Standing Committee to Messrs. Farmer and Brindley's workshops took place on Saturday, the 9 December, at 10.30, and was attended by about thirty-five members. Mr. Brindley, together with members of his staff, conducted the party round the workshops for an hour and a half, not too long a time in which to examine so much that was interesting.

There were great stocks of marble in the rough, as imported, some still showing the markings of the wire saws by which they were cut from the quarries in Greece. There were the mechanically operated frame saws which cut the blocks into thin slabs or smaller blocks. For trimming the edges of slabs a carborundum wheel, very like a circular saw in appearance, is used working at a very high speed and water cooled. The polishing of the slabs is done mechanically on an iron table, over which is a "bridge" and an eccentrically revolving flat iron frame, the working surface being of large iron studs at the beginning of the operation and of felt for the fine finish. Sand, emery and, finally, putty powder are used in the three stages of the polishing. A clever "sun and planet" motion causes the frame itself to revolve and so prevents any circular markings on the polished slab. Blocks are planed down to a true surface on a revolving iron table, about 12 feet in diameter. Wooden stops are fixed across the diameter of the table, against which the marble block is laid to be ground. Sand and water are thrown on the table as required, and the mason moves the block about at will, weighting one side or the other according as the wearing down of the marble takes place.

The moulding machine is much like a wood moulder in appearance and general working, but a carborundum wheel in the one takes the place of the steel knife in the other. As compared with wood moulding, the process is slow. The carborundum wheel is used with comparatively light pressure, and is said not to "stun" the stone to any appreciable extent as the older fashioned steel cutters did. Various sized wheels are used, but, unlike the wood-cutting knife, they are not made to the section of the moulding, which is worked out gradually to the lines marked on the end of the block of marble. Only slight undercutting can be done on this machine.

A 12-foot column in verte antique was being turned in a lathe, and this very interesting process attracted much attention. The polishing of moulded and carved work is done entirely by hand. Many stone carvers were at work on both architectural details and on statuary, the process of copying the plaster design in marble being explained.

From the architect's point of view, the great value in this visit was in seeing the methods by which the finished work is produced, in forming an opinion as to the use of machinery and its limitations in attaining that end, and in reimpresing upon his mind that his drawing board and tee square must not be allowed to tyrannise over his design.

At the conclusion of the visit, Mr. Brindley was thanked on behalf of the Art Standing Committee for his hospitality to members of the Royal Institute.

ARTHUR WELFORD [A.]

THE ST. PAUL'S CATHEDRAL FUND.

FINAL APPEAL.

The Council of the Royal Institute announce that on 22 January 1923 the subscriptions received towards the St. Paul's Cathedral Fund amounted to £137 18s. 6d., including sums collected and forwarded by the Allied Societies.

The Council have decided once more to appeal to the members of the Royal Institute to take advantage of the unique opportunity which will occur on 26 February next of testifying in the most sincere manner possible to the memory of Sir Christopher Wren by helping in a practical way towards the preservation of the national monument which was his greatest work.

It is earnestly hoped that the sum to be handed to the Dean and Chapter on the occasion of the Celebration of the Bicentenary of the death of Sir Christopher Wren will be considerably in excess of the amount stated above, and that those members of the Royal Institute who have hitherto been prevented from contributing to the R.I.B.A. Fund will take the earliest opportunity of doing so. All remittances should be forwarded to the Secretary R.I.B.A.

R.I.B.A. ANNUAL CONFERENCE, 1923.

The Annual Conference of the R.I.B.A. and its Allied Societies will take place in Edinburgh on 13 to 16 June 1923. The Conference will be held in conjunction with the Annual Convention of the Incorporation of Architects in Scotland, and the arrangements for the Conference have been entrusted to the Council of that body, by whose invitation Edinburgh was selected as the place of meeting. A fully detailed programme will be published at an early date, and in the meantime it is hoped that all members will make a note of the date and endeavour to arrange their engagements so as to permit them to make the journey to Edinburgh to take part in the Conference.

R.I.B.A. STREET ARCHITECTURE MEDAL.

Members and Licentiates are informed that they need not submit a photograph and elevation of a building which they wish to nominate for the R.I.B.A. Street Architecture Medal, except in cases where they wish to nominate a building erected to their own designs. The Secretary R.I.B.A. has arranged to inform architects of buildings for which nominations have been received, and will invite them to send photographs and elevations for the Jury's consideration.

THE BRITISH EMPIRE EXHIBITION, 1924.

The President of the Royal Institute of British Architects has been appointed a Member of the Art Council of the British Empire Exhibition, 1924.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Allied Societies

LEICESTER AND LEICESTERSHIRE SOCIETY
OF ARCHITECTS.

FIFTIETH ANNIVERSARY.

SPEECH BY MR. WATERHOUSE.

There was a large attendance of members at the Jubilee Dinner of the Leicester and Leicestershire Society of Architects which was held on 18 January. The guests included the President, R.I.B.A., Mr. Ian MacAlister (Secretary R.I.B.A.), Mr. R. Savage, President of the Birmingham Architectural Society, Sir Arthur and Lady Wheeler, and Mr. Stimpson, President of the Building Trade Employers.

Mr. William Keay, the President of the Society, was in the chair.

In welcoming the assembled company, Mr. Keay recalled some of the great names associated with their society—Ordish, Tait, Pick, Thompson.

Mr. W. K. Bedingfield proposed "The Royal Institute of British Architects," and said the Institute had done wonderful work in the direction of consolidating the profession of architecture in raising its ideals and in educating the younger generation. Unfortunately there was still some 40 per cent. of architects who were outside the Institute, which would not rise to its greatest influence until it embraced the whole of the profession.

Mr. Paul Waterhouse, in replying, said it was a bright spot in his presidency that the Leicester jubilee fell within its limits. No one realised more than architects the duty and blessedness of extending, not only sideways, but backwards and forwards. They were no good as architects unless they were links between the remotest past and the remotest future. A solitary architect was a contradiction in terms. It was only by association, friendship, and affection that they could do their work properly. Their business was to indulge in competition with one another tempered by friendship—an expression usually rendered by the common English word "sportsmanship." The growth of architectural education in the last two generations was one of the most remarkable things in England.

Mr. R. Savage (President of the Birmingham Society) proposed "Leicester City and Trade," and urged that Leicester should follow the example of Birmingham and start a Civic Society, which would, he thought, in time exercise a valuable influence in the direction of beautifying the city.

Mr. C. Bennion responded to the toast, and said Leicester was fortunate in that it had not felt the extreme distress of some other districts. Unfortunately the trouble on the Continent had put the clock back for the time being. There was no reason why, because they were a manufacturing city, they should be an ugly city. It was quite possible even for factories to harmonise with their surroundings and be beautiful to look upon.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

At a meeting of the Birmingham Architectural Association, held on Friday, 15 December, Mr. C. Grant Robertson, M.A., C.V.O., Principal of the Birmingham Univer-

sity, gave a lecture entitled "Provincial Universities and the study of Architecture."

The lecturer said that the seven provincial Universities each had their own particular area, and that no University encroached on the sphere of another. Thus Birmingham would not specialise in textiles, but rather in such branches as Mining and Electrical Engineering, as these were amongst the most important occupations of the Midland Counties. The influence of one faculty in a University on another was very beneficial, for by mutual criticism a general raising of standard was effected. Mr. Grant Robertson said that he would welcome a Department of Architecture in the University of Birmingham. It would improve the architecture in the city, and the criticism of the other faculties would bring about a greater appreciation of the fine arts by the general public. Such a department would have to start in a small way, and be built up as experience and application dictated.

Members of the profession would have to be consulted, and arrangements would have to be made which would enable students to spend part of their time in offices, for there were parts of an architect's education which could only be acquired by practical experience.

One fact which was not always realised was that an architect, like any other professional man, must have a good general education before commencing to study for his profession, and unless students could satisfy the authorities that they had sufficient ground work, they should not be admitted to the University.

At the conclusion of the lecture, Mr. E. P. Reynolds [F.] proposed a vote of thanks to the lecturer, which was seconded by Mr. B. J. Fletcher and carried with acclamation.

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

Mr. J. Alfred Gotch gave a lecture on "The Notable Houses of Northamptonshire," before the Sheffield, South Yorkshire and District Society of Architects and Surveyors on January 11.

The lecturer stated that Northamptonshire was a county particularly rich in noble buildings, and showed how new churches were built and existing ones added to until the Reformation came, followed early by the dissolution of the monasteries, when church building practically ceased and a great period of house building began, which lasted from the middle of the sixteenth century till the Civil Wars of the next century, which diverted people's attention from building. Mr. Gotch said that Northamptonshire shared to the full in the building activities of the time and some of the largest private houses in the country were built during these years—Holdenby, Kirby and Burleigh, for example—whilst many were considerably enlarged, including Rockingham Castle, Drayton, Rushton, Apthorpe and Canons Ashby, in addition to which Dingley Hall was built, as well as many smaller manor houses.

Among other buildings of interest mentioned were the market-house at Rothwell, which was never finished; the very curious Triangular Lodge and the "New Building" at Lyveden, all built by Sir Thomas Tresham. The Triangular Lodge sets forth in stone the mystery of the Trinity, everything being in threes, there being three sides, three floors, three windows in each side on each floor and three

OBITUARY

legends each with thirty-three letters. Sir Thomas, who was a deeply religious as well as a superstitious man, further emphasises these characteristics in the "New Building," evidently built for a dwelling-house, in that it is the shape of a cross, with equal arms, on plan, the cornices being decorated with carved symbols of the Passion, the crown of thorns, the hammer and nails, pincers, sword, spear, lantern and the sword of St. Peter with the ear of Malchus adhering to it.

At the conclusion of the lecture a cordial vote of thanks was proposed to Mr. Gotch by Mr. A. F. Watson, and seconded by Major C. B. Flockton.

LIVERPOOL ARCHITECTURAL SOCIETY.

The dinner in commemoration of the 75th anniversary of the formation of the Society, which was arranged for 1 March has been changed to take place on 6 March, at the Midland Adelphi Hotel. The Lord Mayor of Liverpool and Mr. Paul Waterhouse have accepted invitations to the dinner.

Obituary

GEORGE T. BROWN [F.]

Mr. Brown was elected a Fellow of the Royal Institute of British Architects in the year 1905. He was also a Fellow of the Surveyors' Institution and a past President of the Northumberland and Durham Branch of the Surveyors' Institution. He was President of the Northern Architectural Association in 1908-1909, and was on the Surveyors' Institution Panel of Referees in connection with the important work of arbitration for special references. He was from 1909 until the time of his death Hon. Secretary of the Northern Architectural Association.

The late Mr. Brown was a native of Sunderland, and had been in practice in that town for the past thirty years. His business was largely consultative, with special reference to colliery subsidence work, and his services were in great request in the North of England. With respect to his architectural work, his design was placed first for a large Training College on the Ford Estate near Sunderland before the war, but owing to changing circumstances this scheme was abandoned. He was also successful in a competition for the enlargement of the Sunderland Technical College, and several elementary and secondary schools in the district have been carried out under his supervision. He did a large amount of estate work and was responsible for the designing and carrying out of many industrial and other buildings in his district.

The following appreciation is quoted from one of the local papers :—

"Those of us who had the privilege of Mr. Brown's friendship remember his many sterling qualities, his largeness of heart, and his broad views. He has died possessed of, perhaps, what is the greatest test of all

regard—the esteem of his fellow architects. He was endowed with every gift that made for a close and lovable friend and every quality that made him just and generous in controversy; his was a nature that could accept honours with becoming grace and that could rejoice over a competitor's success.

"As an architect his works are outstanding. As an arbitrator his name was well known throughout the provinces and his services sought after as a skilful, true, and thoroughly reliable umpire. His particular work was of a most difficult character, and yet he always brought to bear on even the smallest case a uniform sense of justness and fairness and a spirit of appreciation of the other man's point of view.

"Some of his fellow townsmen have had the opportunity of judging the vast amount of comparatively unseen work G. T. Brown has done for public charity. Many of our town know also of his work on public committees and his ceaseless activities for good. Perhaps, however, his greatest work, the work he did for the Northern Architectural Association, is not so well known to the general public. His services, both as President and as Hon. Secretary, will never be forgotten by his brother architects. He exerted himself particularly to further the interests of the younger men of his profession, and it was largely due to him that this year a school of architecture was founded in connection with the Armstrong College, Newcastle-on-Tyne."

The business of the late Mr. Brown will be carried on by his son, Mr. G. Talbot Brown, Associate of the Royal Institute of British Architects.

C. GLYNN EVANS [F.]

Mr. C. Glynn Evans [F.] The Croft, Neath, who died on 9 January, was a pupil and afterwards an assistant of Mr. J. Cook Rees, Neath. He subsequently became chief assistant to Messrs. Wm. Griffiths & Son, Llanelli, and was admitted an Associate in 1912. In 1913 he opened in practice in Neath and soon began to make a name in domestic architecture. He was appointed architect to the Neath Housing Scheme in conjunction with the late Borough Engineer, Dr. D. M. Jenkins. In 1921 he was elected a Fellow of the Institute.

Mr. Evans's life from childhood had been a struggle against ill-health, but he seldom complained, and his cheery optimism deceived casual friends with regard to the extent of his sufferings.

John Bennie Wilson [F.]. President of the Glasgow Inst. of Architects in 1910, and representative of that body on the R.I.B.A. Council, 1910.

G. G. Fleming [*Licentiate*].

Percy Walker [*Licentiate*].

R.I.B.A. Prizes and Studentships, 1923

Deed of Award

The designs and drawings submitted for the Prizes and Studentships in the gift of the Royal Institute are now on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, and will remain open to members and the public until 5 February (10 a.m. till 8 p.m.; Saturdays, 5 p.m.). The Council's Deed of Award, read at the General Meeting of 22 January, gives the results as follows—

THE ROYAL INSTITUTE SILVER MEDALS.

(i) *The Essay Medal and Twenty-five Guineas.*

Five Essays were received for the Silver Medal under the following mottoes :—

1. "Argumentum ad Judicium": The Architectural Problem of the Modern Shop.
2. "Aristus": An Introduction to the Theory of Architecture.
3. "Korea": The Study of Sound in its Relation to the Design of Buildings.
4. "Petivi": The Most Genial Artist of his Time, Pirro Ligorio of Naples, Rome and Ferrara.
5. "Poffergy": Flats.

The Council have awarded the Silver Medal and Twenty-five Guineas to the author of the Essay submitted under the motto "Aristus."*

(ii) *The Measured Drawings Medal and Fifty Pounds.*

Three sets of drawings were sent in of the several buildings enumerated under mottoes as follows :—

1. "Cheddar": 2 strainers (Chapel of St. Anselm, Chester).
2. "Diligente": 4 strainers (The Palazzo Horne, Firenze).
3. "Oxonop": 8 strainers (Campidoglio, Rome).

The Council have awarded the Silver Medal and Fifty Pounds to the delineator of the Drawings submitted under the motto "Oxonop."†

THE TRAVELLING STUDENTSHIPS.

(i) *The Tite Prize and One Hundred Pounds.*

Nine designs for an Italian Embassy in a European Capital were submitted under the following mottoes :—

1. "B. O.": 3 strainers.
2. "Utinam": 3 strainers.
3. "Sebastian": 3 strainers.
4. "Poffergy": 4 strainers.
5. "Geneva": 3 strainers.
6. "European": 3 strainers.
7. "Tishy": 5 strainers.
8. "Blue Square": 4 strainers.
9. "Tujja": 4 strainers.

* "Aristus": Lionel B. Budden, M.A., A.R.I.B.A., Withinfield, Heswall, Cheshire.

† "Oxonop": Wesley Dougill, B.Arch., Liverpool, A.R.I.B.A., "The Lees," 58 Calthorpe Road, Edgbaston, Birmingham.

The Council have awarded the Certificate, and, subject to the specified conditions, the sum of One Hundred Pounds to the author of the design submitted under the motto "Tujja,"‡ and a Certificate of Hon. Mention to the author of the design submitted under the motto "Poffergy."§

(ii) *The Pugin Studentship and Seventy-five Pounds.*

Two applications were received for the Pugin Studentship from the following gentlemen :—

1. G. H. R. Heritage: 4 strainers.
2. A. Newton Thorpe: 4 strainers.

The Council have awarded the Medal, and, subject to the specified conditions, the sum of Seventy-five Pounds, to Mr. A. Newton Thorpe, Cemetery Lodge, Fulford, York.

(iii) *The Owen Jones Studentship and One Hundred Pounds.*

One application was received from the following gentleman :—

- C. F. Filbey: 6 strainers.

The Council have awarded the Certificate and, subject to the specified conditions, the sum of One Hundred Pounds, to Mr. C. F. Filbey, 123 Crystal Palace Road, East Dulwich, S.E.22.

(iv) *The Henry Saxon Snell Prize and Fifty Pounds, increased on this occasion to Sixty Pounds owing to the generosity of Mr. A. Saxon Snell.*

Eight designs for a Maternity Home and Infant Welfare Centre were submitted under the following mottoes :—

1. "Ad Rem": 1 strainer.
2. "Roona": 1 strainer.
3. Crane (device): 2 strainers.
4. Three Diamonds (device): 2 sheets.
5. "Knype": 4 sheets.
6. "Solomon": 2 strainers.
7. Square and Compass (device): 3 strainers.
8. "Ursa": 4 strainers.

The Council have awarded, subject to the specified conditions, the Prize of Sixty Pounds to the author of the design submitted under the motto "Ad Rem,"||

‡ "Tujja": John Chiene Shepherd, A.R.I.B.A., 51 Torrington Square, London, W.C.1.

§ "Poffergy": Miss Isabel M. Chambers, "The Priory," Roehampton, S.W.15.

|| "Ad Rem": Ernest G. Theakston, F.R.I.B.A., 12 New Court, Lincoln's Inn, London, W.C.

NOTICES

and Certificates of Hon. Mention to the authors of the designs submitted under the motto of "Roona,"* and the device of a Crane.†

(v) *The Godwin Bursary and Wimperis Bequest : Silver Medal and one Hundred and Thirty Pounds.*

Six applications were received for the Godwin Bursary and Wimperis Bequest from the following gentlemen :—

1. W. T. Benslyn [A.]
2. L. H. Bucknell [A.]
3. S. W. Milburn [A.]
4. W. S. Purchon [A.]
5. E. W. B. Scott [A.]
6. A. F. Wickenden [A.]

The Council have awarded the Medal, and, subject to the specified conditions, the sum of One Hundred and Thirty Pounds to Mr. W. T. Benslyn, A.R.I.B.A., 42 West Side, Wandsworth Common, S.W.

The Grissell Gold Medal and Fifty Pounds.

Four designs for a Warehouse were submitted under the following mottoes :—

1. "Rivet" : 2 strainers.
2. "Syntithemi" : 6 strainers.
3. Fleur de Lys (device) : 5 strainers.
4. "Bluzz" : 2 strainers.

The Council have awarded the Medal and Fifty Pounds to the author of the design submitted under the motto "Rivet."‡

The Ashpitel Prize, 1922.

The Council have, on the recommendation of the Board of Architectural Education, awarded the Ashpitel Prize (which is a Prize of Books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year) to Mr. Alexander Simpson Reid [A.], of 221 Clifton Road, Aberdeen, Probationer, 1921, Student, 1921, and who passed the Final Examination, July, 1922.

Competitions

BRECHIN WAR MEMORIAL COMPETITION.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

BOURNEMOUTH PAVILION COMPETITION.

The President of the Royal Institute of British Architects has nominated Sir Edwin Cooper, F.R.I.B.A., as assessor in this competition. IAN MACALISTER, Sec.

* "Roona" : G. B. E. Norburn, A.R.I.B.A., The Crossways, Northwood, Ramsgate, Kent.

† Crane (device) : Alfred John Brown, A.R.I.B.A., 35 Handside Lane, Welwyn Garden City, Herts.

‡ "Rivet" : Percy Morrey, M.B.E., A.R.I.B.A., Wynhill, Bramhall, Cheshire.

Notices

The Seventh General Meeting (Ordinary) of the Session 1922-23 will be held on Monday, 5 February 1923, at 8.30 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on 22 January 1923 ; formally to admit members attending for the first time since their election ; announce names of candidates nominated by the Council for election to the various classes of membership.

To announce the Council's nomination for the Royal Gold Medal 1923.

The President to deliver his Address to Students and to present the Prizes and Studentships awarded by the Council for 1923.

Mr. Henry V. Ashley [F.], to read a Criticism on the designs and drawings submitted for the Prizes and Studentships.

R.I.B.A. SESSIONAL PAPERS PROGRAMME.

The Paper on "Tradition and Originality in Italian Renaissance Architecture," which was to have been read by Mr. Geoffrey Scott on 28 May, has had to be postponed until next session. Mr. Delissa Joseph, F.R.I.B.A., has accepted the Council's invitation to read a paper entitled "Building Heights and Ancient Lights," on the vacant date.

REINSTATEMENTS.

The following Members and Licentiates have been reinstated :

- As Fellow : T. Butler Wilson.
As Associate : Harry Thomas Bill.
As Licentiate : Hugh Campbell.

BOARD OF ARCHITECTURAL EDUCATION. R.I.B.A. INTERMEDIATE AND FINAL (AND SPECIAL) EXAMINATIONS.

The Intermediate and Final (and Special) Examinations will be held this year (1923) on the following dates :

INTERMEDIATE EXAMINATION.

1, 4, 5, and 7 June 1923—Last day for receiving applications, 28 April.

23, 26, 27, and 29 November 1923—Last day for receiving application, 27 October 1923.

FINAL (AND SPECIAL) EXAMINATIONS.

14, 15, 16, 18, 19, and 21 June 1923—Last day for receiving applications, 5 May.

6, 7, 8, 10, 11, and 15 December 1923—Last day for receiving applications, 3 November.

R.I.B.A. SPECIAL WAR EXAMINATIONS.

UNSUCCESSFUL CANDIDATES.

The Council R.I.B.A. have resolved that candidates who have sat for and failed to pass the Special War Examination shall be allowed to sit for the Special Final Examination (without the submission of probationary work) at any time before the end of 1923.

Candidates who have failed in the Special War Examination on only one occasion will not be required to pay a further fee for one attempt at the Special Final Examination, but candidates who have failed at the Special War Examination on more than one occasion will be required to pay the ordinary fee for the Special Final Examination—viz., £10 10s.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Members' Column

NOTIFICATION FROM THE HONG-KONG GOVERNMENT
GAZETTE, PUBLISHED BY AUTHORITY, FRIDAY,
DECEMBER 15TH 1922.

EXECUTIVE COUNCIL.

No. 543—His Excellency the Governor in Council has been pleased to direct under Section 7 of the Public Health and Buildings Ordinance, 1903, Ordinance No. 1 of 1903, that the name of Mr. G. F. Ronald Sample, A.R.I.B.A., M.S.A., be added to the list of Authorised Architects published in Government Notification No. 178 of the 13th April 1922.

Council Chamber.

14th December 1922.

A. D. BALL.
Clerk of Councils.

MESSRS. SEARLE & SEARLE.

Mr. Leonard Keir Hett [F.] and Mr. Arthur Frank Allen [Licentiate] have joined Messrs. Searle & Searle as partners from 1 January 1923.

MESSRS. GEO. T. BROWN & SON.

The practice of the late Mr. Geo. T. Brown [F.I., F.S.I.] will be continued at 51, Fawcett Street, Sunderland, under the name of Geo. T. Brown & Son.

PARTNERSHIP WANTED.

A.R.I.B.A., 20 years' general London and country experience (exclusive 4 years' war service) and five years' private practice, desires partnership with established architect. Apply Box 2213, c/o The Secretary R.I.B.A., 9, Conduit Street, W.1.

OFFICE ACCOMMODATION.

ARCHITECT is desirous of sharing his London offices, with use of separate room. Apply, Box 2313, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

APPOINTMENTS WANTED.

ASSOCIATE R.I.B.A., with 12 years' experience in good New York City offices, including Cass Gilbert, Trowbridge and Ackerman, J. Armstrong Steinhause, Fredk. Stern, finds it desirable for family reasons to return to England, and would be glad to hear of any suitable proposition. Previously in practice in London. Now and for past two years engaged as designer with one of the best known younger New York men. For further information apply Box 1513, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

ARCHITECT'S ASSISTANT, A.R.I.B.A., shortly disengaged; £ in. working drawings, £ in. and F.S. details. Experienced designer. Domestic, public office, and bank work. Accustomed to supervising and preparing drawings on the actual job. Moderate salary. Apply Box 281, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

ARCHITECTURAL ASSISTANT requires post in any capacity. Many years experience in the Tropics and South Africa. Married; 35. First-class draughtsman. Excellent references. An immediate appointment is essential. Not afraid of real work. Apply Box 445, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

A.R.I.B.A. urgently requires post, 14 years varied experience of good class work in Scotland and England. Excellent draughtsman, first-class designer, capable of preparing drawings from sketches, full size and £ in. details, etc. Society of Architects prizeman. Part time not objected to. Box 2113, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

ARCHITECTURAL JUNIOR ASSISTANT requires post. London preferred. Age 23. Four years' varied experience (London). First-class draughtsman. Excellent references.—Apply Box 999, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

GENTLEMAN WITH CAPITAL, A.R.I.B.A., varied experience in London and provinces—travelled—good designer and capable business man with practical knowledge, requires share in bona-fide practice or Senior Assistant's post with view to same. Box 2513, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

A.R.I.B.A. and P.A.S.I., brought up to private practice, but who since his demobilisation from the Army has held, and still holds, a permanent position as quantity surveyor on the staff of the Borough Engineer's Department of a County Borough, desires to work in association with a London architect of standing who is a capable designer. Advertiser is fully competent to prepare all working drawings, write specifications, prepare bills of quantities, and to adjudicate accounts at completion of contracts. Apply, Box 2413, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

Minutes VI

SESSION 1922-1923

At the Sixth General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 22 January 1923, at 8 p.m.—Mr. Paul Waterhouse, President in the chair. The attendance book was signed by 30 Fellows (including 11 Members of the Council), 83 Associates (including 3 Members of the Council), 12 Licentiates, and a large number of visitors.

The Minutes of the Fifth General Meeting, held on 8 January 1923, having been taken as read, were confirmed and signed by the Chairman.

The Hon. Secretary read a letter from Sir Edwin Cooper thanking the members for the vote of congratulation passed at the last meeting.

The Hon. Secretary announced the decease of Mr. John Bennie Wilson, elected Associate in 1882 and Fellow in 1910; Mr. Charles Glynn Evans, elected Associate in 1912 and Fellow in 1921; Mr. G. G. Fleming, elected Licentiate in 1911; and Mr. Percy Walker, elected Licentiate in 1910, and it was RESOLVED that the regrets of the Royal Institute for the loss of these members be recorded in the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members, attending for the first time since their election, were formally admitted by the President:—

Mr. T. A. Darcy Braddell [F.],
Mr. A. J. Brown [A.],
Mr. John Clack [A.],
Mr. E. L. Gunston [A.],
Mr. H. A. J. Lamb [A.],
Mr. C. J. Norton [A.],
Mr. F. A. Richards [A.].

Mr. W. E. Riley [F.], assisted by Mr. Ralph Knott [F.], having read a paper on "The London County Hall," on the motion of Mr. Francis R. Anderton, Chairman of the London County Council, seconded by Mr. Andrew T. Taylor [Retired Fellow], a vote of thanks was passed to Mr. Knott and Mr. Riley by acclamation, and was briefly responded to.

On the motion of Professor A. Beresford Pite [F.], it was RESOLVED that the Royal Institute of British Architects does hereby express to the London County Council its appreciation of their courage and success in providing London with a monumental civic building.

The Secretary having read the Deed of Award of Prizes and Studentships made by the Council under the Common Seal, the sealed envelopes bearing the mottoes of the successful competitors were opened and the names disclosed.

The proceedings closed at 9.45 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Clients : An Address to Students

BY THE PRESIDENT, MR. PAUL WATERHOUSE, M.A.

[Delivered at the General Meeting of the Royal Institute of British Architects on Monday, 5 February 1923.]

I HAVE decided after much thought to address you—students of architecture—on the subject of clients.

It is a subject so fraught with delicacy that it is almost ranked among the indelicacies of conversation. I do not remember to have ever heard a responsible architect with clients of his own speak publicly upon the topic. The reason for this lack of utterance may possibly lie in the fear that no man can possibly speak from experience of clients in the past without hopelessly alienating the clients of the future. I have no such fear ; for in the first place the employers of my past energies have seldom or never failed to deserve the kindest things I can say of them, and in the second I do not propose to utter anything to-night on the subject of clients in general that could bring any blush, but that of satisfaction, to their honest cheeks.

Do you all know what a client is ? The word has a strange origin, and has in the course of history partly, I believe, through the action and attitude of lawyers, turned itself upside down.

A powerful Roman, on whom waited a hungry crowd of dependants, was wont to call himself their patron or *patronus*, and the dependants, who didn't mind what name they took so long as they got his favours, were dubbed clients. Literally, I understand, the word means one who listens eagerly, and, therefore, so long as our employers are waiting like

faithful hounds with ears cocked to catch our lightest word we may appropriately call them clients. But in this age of ours the *queue* system for employers of architects is, I believe, confined to one or two rather grave cases, and until it becomes a nuisance of general application I am given to think that the word is, from an antiquarian point of view, rather misapplied. The patron was the legal protector of his clients. Hence came the modern application of the word client to a solicitor's or barrister's employer. The application soothes the lawyers, but I have never heard of a lawyer who went the length of setting himself up as a *patronus*.

Anyhow, there are the clients for you—or there may be—and I mean to talk about them, even if I venture, out of respect for the class, occasionally to call them employers.

A great part of your business, if you are going to swim and not to sink, will consist in the successful treatment of your employers. You will please observe that I have escaped using the word "management."

I escaped it on purpose, because any idea of illicit persuasion, of cajolement or of deceptive encouragement is entirely foreign to what I have to say to-night.

There is one very simple, very obvious, and very rational condition embodied from the very beginning in every transaction between an architect and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

his employer. It is so radical and integral that it astonishes me to find how frequently it is entirely overlooked by both parties.

The client's outlook on the coming job is hedged in like most fields of logical enterprise by two data, which you may call, if you are in a logical mood, the major and minor premises. But since the word premises is liable to be misunderstood in connection with architecture, and since these two data are of equal cogency, and are not necessarily pulling in the same direction, I prefer to call them the two counterpoises.

One of these, of course, is the house (or other building) that the employer wants and the other is the sum of money he is content to spend. Observe, I do not say the house he first asks for or the sum he first names.

And when I thus differentiate I am not at all implying that he is going to be screwed up to a building more costly than he wants or can afford, but simply that you and he, acting on one another, may modify these conditions at a very early stage in various directions.

Anyhow, there are these two elements—the price offered and the building wanted. Will they fit one another? It is a hundred to one that they will not. If they do not, it is well to remember that this misfit is probably nobody's fault.

At this stage it will be your privilege to point out to your employer that something has got to give way. The original idea of the house must be reduced or the sum of money must be increased. If you are both honest and really capable, no embarrassment attends the explanation. But you must be quite sure in your own mind that you are capable of working without extravagance.

The expedient at this stage of deceiving your client or yourself with an approximate estimate based on an unreasonably low factor of price is, of course, unpardonable as well as very impolitic.

You should always make approximate estimates and, I entreat you, always keep them. Start an approximate estimate book as soon as you have a brass plate, check each estimate with the contract figure, check it also with the final account, and keep it till you can hand it over to your office successor.

When you have satisfied your employer about price and he has satisfied himself about size and degree of luxury or simplicity, there remains still, as we all know, the great question of agreement on questions of taste. Here is, or may be, the hardest

trial of all. You may, it is true, come to a parting of the ways at which your ways must literally be parted. Your conscience as an artist may compel the severance. But it should not come before you have made sure that it is art, not obstinacy, that is stiffening your backbone, and until you have realised that there is more than one way of doing even a work of art. Certainly you should never do a work of which you are ashamed, but there is a difference between shame and mere disappointment, and you may be able, by substituting simplicity for your own choice in display, to achieve a triumph—not of mediocrity, but modesty. It is in cases where your patron asks for the too much rather than the too little that your profession of faith is most likely to be put to the trial.

Shall we remember here to come back for a moment to the more elementary essence of your craft, that architecture, as I have said elsewhere, is not so much a noun as an adverb. And the adverb is not "how much" but how.

The client pays for his house to be built. The builder builds it. The whole business of "how" it is built is yours.

It is with no disrespect towards clients that I tell you that they are of different kinds. Being human beings, they can hardly fail to differ. And these differences which make them so interesting as employers are partly differences of mentality and partly differences both of taste and of wealth. It is your business to be perfectly respectful students of these differences, not merely in your own interests but in theirs. Remember, it is you who stand, not as antagonists before your employers, but as mediators between them and the fulfilment of their own desires. There are some people who find great difficulty in expressing their needs. To them you will be helpful in guiding that expression. There are some who do not fully know their needs and who look to you for initiation into likely directions. Others there are who require your services chiefly because they rightly look upon an architect as the doorkeeper of building enterprise, just as a solicitor is the doorkeeper of law. It is well at the outset to discover by observation and with tact what is the light in which you are viewed, and if possible to make sure without any derogation from your office as artists that you do to the utmost of your ability supply, along with your artistry, that guidance, that prompting, or that specially businesslike alacrity which your employer quite legitimately seeks.

CLIENTS : AN ADDRESS TO STUDENTS

You will find some clients—both individual and bodies corporate—who do not trust you. I do not blame them, for their attitude is caused either by unhappy experience in the past or by incorrect information as to the nature of an architect. It is best in such cases to make sure at an early stage of your own intention to be scrupulously worthy of trust, and, if possible, to convince your client in such a way as to change his mind. I say this not for your sake, nor wholly for his sake, but for the sake of the job.

I once had such a client—he was a corporate one—on a fairly large scale. Banking on the certainty that I should lead that body corporate into an expenditure 20 per cent. in advance of the contract, the said body cut my authorised expenditure down accordingly. I, being honest, robbed the building of certain things which I should have dearly liked to have incorporated in it, and came out of the final accounts triumphant. At least, I thought it was a triumph until I met the committee, when I discovered that my parsimony was a genuine disappointment. Let us gather from this experience, not that we may always exceed our orders, but rather that, if we all unite in keeping up the general reputation for working to a fixed figure, we shall kill that reputation for expansion, the rumour of which had led my friends into a temper of insufficient confidence.

But there are other minds who equally need our respect. There are employers to whom the achievement of a really fine building is of greater importance than the saving of money.

It will happen to you if you become moderately busy men that you will be simultaneously the stewards of the finances of employers, some of whom are at opposite extremes in this respect ; and I know nothing more difficult than the exercise of brain demanded by having to turn, perhaps in the very same morning, to the interests of those who demand rigid economy those who look for a perfect building, and those, again, on whose behalf decisions have to be taken on doubts, in which the counterpoise of perfection and cash has to be very evenly weighed.

No large building, however carefully planned and specified, gets through its whole course of creation without any variations. These variations are beset at every turn by the question of cost, and every question of cost has to be judged by one criterion only—that of the inclinations of the client. I say “of his inclinations,” which is not the same as

saying “his wealth,” and by no manner of means the same as your personal wishes.

You will think that I am degrading architecture to the level of rather sordid finance. Let me put the thing in another light. If an employer were to bring you an irregular mass of costly marble, and were to say to you, ‘ It strikes me that this queer-shaped but precious block might be so cut that we could obtain from it material for the jambs and pediment of a doorway. It is unique, no man can obtain more of it ; it is so valuable that we must not leave any of it unused.’

With what gaiety of heart would you set your ingenuity to work to get some original design achieved which would employ every ounce of that material and call for no more. My young friends, the stipulated price named for his building by a client whose means or legitimate wishes are limited is just such a block of precious metal.

If you HAVE *carte blanche* it is another matter, and if the *carte blanche* relates not to money only but to a free exercise of your own fancy, you are lucky indeed. But, remember, the greater the trust the greater the responsibility ; and remember also that the best architecture is wrought as a rule from the conflict with limitations.

Remember, again, that quite apart from the question of future favours there is no friend like an old client. The relationship of architect and employer is one of the most intimate and delightful nature when nothing mars its perfection. The architect is, on the whole, the more likely of the two parties to disturb the smooth surface of that delicate relationship, for he has more opportunities of failure and is more greatly at the mercy of chance. Therefore, be ever on the watch, remembering through all your difficulties the value which your appointment has outside altogether of its pecuniary and professional nature.

To this end be very loyal. You are, if your work is a domestic work, admitted to an interior knowledge of your client’s family life, which is very near that of the doctor and very like that of the solicitor.

Never tell stories of one client to another. Consider the financial side of your transaction as a confidential secret and regard as sacred all intimacy to which you are admitted.

If trouble comes between you, search your own mind for the cause of it, remembering that your employer, being a gentleman, may shrink from telling you what is the real cause of the break.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Now let me talk quite boldly about the unspeakable subject of asking for work. You and I know that it "isn't done," but when we have said that we have said what isn't historically true. But between sending a letter of definite appeal direct to the projector of a building and lying low there are a great many fine shades of discreet or indiscreet suggestions, and persons have been known to draw the line for themselves at various points between zero and the boiling point. I am not going to tell you where the right line is, except that speaking in terms of the thermometer, I believe it is somewhere between zero and freezing point, and that the further it is below 32° the better. I do not suggest that a man should keep his candle under a bushel, but he should not push it under people's noses.

I have, however, one appeal to make. Every man who does in any degree propose his own employment, except by the legitimate means of competition and the like, not only does injustice to the more modest and loyal practitioners, not only breaks the code of our etiquette, which is, after all, a sportsmanlike agreement with one another, but

he paves the way for a possible breakdown of the condition under which we all live and work.

Consider for a moment the strain under which we should all live if the solicitation for work were general, and if we felt it our duty to ourselves, our wives and our families, to be always out on the war-path attacking every opening and besieging every likely promoter of building enterprise.

Gentlemen, if you wish our profession to "live happily ever after" and to be respected by those to whom we owe our opportunities, set your faces against self-recommendation.

The best people don't do it. Be best people.

In conclusion, I hope for you all that you may enjoy from the outset—through all the successes, disappointments and worries of honourable and happy careers, those pleasures and satisfactions which have been my own cherished possessions—the friendship and trust of good clients.

That they are long-suffering, that they often give that friendship where it is little merited, and bestow that trust in a degree which seems scarcely deserved, I for my own part know only too well.

Long live the good clients !

Vote of Thanks to the President

The Right Hon. VISCOUNT LEVERHULME : Mr. President, ladies and gentlemen, I suppose I have been invited to propose this vote of thanks because everybody knows I am quite deaf and therefore it is impossible for me to have heard anything that has been said. It is ideal for the proposer of a vote of thanks, and not likely to produce any prejudice. But I have had the advantage, Mr. President, of reading your most delightful paper, and, as a client, I have had some prickings of conscience at many of the remarks you have made, especially about cutting down expenses. I cordially rejoice in what you say about making an architect your friend. My life-long friend is an architect ; we have known each other for sixty-eight years. When we first met at a dame's school we were five years of age, and, as was the custom then at that age, we wore frocks ; it was not until after five years of age that you were what was called "breeched." It was called a seminary for young ladies and young gentlemen. We have never had a quarrel. He has made many delightful plans for me, and executed a great deal of work, and our first quarrel has yet to come. I cannot say the same of every other professional man, but I can say I have not had a quarrel with an architect. That is due to the architect, however ; it is not because of any merit of my own. I ought to have been an architect. It was the dream of my youth, and the maturer ambition of my riper years, but it never

came off. Instead of that, I have been building, or adding to existing buildings, each year, without exception, since I was nine years of age. At that early age I built a rabbit cote. I got a few empty bacon boxes in my father's grocery business and knocked the sides off, and choosing an angle of the garden where two walls joined, I built my rabbit cote. I had no contractor, I did it all myself, and I was proud of the fact that I could get into it along with the rabbits. I had a scheme which, if it had succeeded, would have done much to relieve the limitations of this land in regard to growing food. I thought that if I put six or eight inches of soil on to the roof of my rabbit cote and sowed some corn on it, I could get a rich harvest, and my precarious means of procuring my rabbits' food would be increased manifold. Everything went flourishingly until some hot days in summer, and then I saw it wither up ; and this scheme, which would have added millions of acres if applied to the roofs of houses generally, and supplied food to the hungry people living in them, came to nothing. The next year I added a pigeon loft, and I have been building ever since in most countries of the world, and a delightful feeling it is. If I had been an architect, look what would have happened ; I should have had far more pleasure, because when it came to paying I should have written a certificate and called on the client or employer, and he would have had to pay. Instead of that, I receive these

VOTE OF THANKS

certificates, and the lawyer tells me, "When you have a certificate from an architect the builder can sue you immediately, if not sooner, therefore you had better pay up, smile, and look pleasant," and I have to do it.

You were speaking, sir, about different clients, and about cutting down the expenses in building houses. I have only one regret about my buildings, and that is when I have cut down the architect's plans. There is a church at Port Sunlight, a delightful and beautiful church, and I remember a clergyman of the Established Church told me it was far too good for Congregationalists, it ought to have belonged to the Established Church. Yet whenever I go into that building I always see the first plans which Mr. Owen prepared for it—the father of Mr. Owen who was the architect for the Lady Lever Art Gallery. The plans he had prepared for the church were most delightful, and it was to have cost about double the existing building. In those days I felt the expense would not be justified; but every time I enter the church to-day I see those first plans, which were so delightful and which were never carried into effect. That is my regret. But I have never had any regret when I allowed the scheme of an architect to go forward without cutting down in any direction. I remember an ambitious architect—and these ambitious architects are always young—who built for me a delightful block of seven cottages at Port Sunlight. In those days we found we could build houses at Port Sunlight for an average price of £300 apiece, and I made that our limit. But this delightful block of seven cottages came out at £400 apiece, and I had to say, as chairman of the company, the custodian of the shareholders' money—is not that the expression?—that we could not do it. He said, "Will you let me do another block of seven, and I will average up so that they come to £300 each?" He erected another seven, but he did not bring the average cost within that. But he built still another seven, and the average for the twenty-one was £300. It is the most charming block in the village, and I am very glad we let him take the course he did take.

You said something about dealing with corporations. I think my feeling about not cutting down the architect must have been shared by a certain corporation of world-wide fame, perhaps not known to any of you by name until I tell you the name later, but certainly known to you; a town of about the size of modern Edinburgh. That corporation wanted to build public buildings: theatres, forums, and all other kinds of beautiful buildings. A modern architect, just before the war, went out there and took tracings of the buildings that had not been swept away. He measured up and priced out at English ruling prices per cubic foot what this nation's known buildings at Athens must have cost the corporation, and he concluded it must have come to at least five hundred millions sterling. Can

you imagine an architect putting before the rich City of London a scheme of municipal buildings, theatres, etc., and having the scheme approved and adopted if it were likely to cost five hundred millions? Yet I think the old City Fathers of Athens must have had the same satisfaction that I have always felt, and they would probably tell us so if they were with us to-day, that they did not cut down the cost of those buildings but carried them through. There is no part of the civilised world to-day that you can go to—London, Paris, New York—where you cannot see the mark and influence of the buildings built in Athens two to three thousand years ago. Athens has left its mark on the civilisation of the world; and I believe, Mr. President, the profession to which you belong does leave its mark indelibly on civilisation and marks our progress. One of the delightful features of modern architecture is the attention given to the home. The English home is founded on the lines of the cottage; not working downwards from the palace, but working upwards to the mansion from the cottage; and I think that the future of our English architecture is something we can well feel proud of. In whatever part of the world you may go to-day you see the people coming nearer and nearer to our charming Elizabethan, or a later period of domestic architecture, in building their homes and making their interiors. We may not have produced, in our architecture, forty-storey buildings, we may not have built wonderful classical temples, but we have produced the "home," the centre of civilisation, the unit of the race. If we have done that, I say our architecture transcends all other architecture in the world—and we have done it. When I said "we" then, I was mindful that you made me an Honorary Fellow of your Institute, and you took a very wise precaution, because before I was raised to this position a document was put before me, and I had to sign it—a document in which I declared I was not going to charge fees. Look what a protection that is for all employers! I do not know what I might have charged the company with which I am connected if I had not taken that rash pledge. One of the most delightful voyages I have had round the world was when in 1892 I left England and took with me among my papers a scheme for the real Port Sunlight. I came back with the plan for the place as it exists to-day. I have tried to find that old plan, and I have asked the architects about it, but it cannot be found. Perhaps I did not attach any particular importance to it at the time, and it was put with other papers which were not thought of much account; but I would give a good deal for it to-day if I could find it. I remember another occasion when I was invited to come here. I was then an Honorary Associate of your Institute. I forget what year it was, but it was over ten years ago, and there was present a very distinguished man who had come to hear the paper. He looked at me and said,

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

"Lever, I did not know you were interested in these recondite subjects." I felt rather crushed, because all my life I had been interested in architecture, and I thought everybody knew it. It shows what fame is!

I have very great pleasure in thanking you, sir, on behalf of everyone here, for your address. I feel deeply and profoundly the pleasure you have given me in reading the paper you have read, though I could not hear it, and I want to thank you very sincerely on behalf of everyone present.

Mr. W. R. DAVIES, C.B. (Principal Assistant Secretary, Technical and Continuation Schools, Board of Education), in seconding the vote of thanks, said : There is very little I need say after Lord Leverhulme has spoken with such humour and felicity. He is a fellow-townsman of mine, and I am very proud of the fact. I assume you asked me to speak because the Department I belong to is supposed to know all about all kinds of students. If it were a matter of engineering, I should say we do really know a great deal about it ; though I do not think I should speak so confidently on

the point to them as I am speaking before architects. As to architecture, I think we are inclined to say ditto to the Royal Institute. I hope that is a very proper attitude. The last time I had the pleasure of being present at this ceremony I think we had a little affair of business with the Architectural Association, and I suppose a good number of the students here to-night must be connected with that school. I feel that the association, if I may so put it, between students of the great profession of architecture and the active leaders in that profession is a very charming thing. I regard it as a model arrangement between the heads of the profession and those who aspire to enter it ; and I think students must profit by the humorous and shrewd advice which was contained in the President's address.

The PRESIDENT, in reply : Lord Leverhulme has to-night let us into an important secret : that if a client is dissatisfied, he should double the order, and then treble it, so as to give the architect a chance of bringing the whole of the houses within a stipulated average price. But such clients are very rare, and the architect is not likely to fare so well elsewhere.

Review of the Work Submitted for the Prizes and Studentships, 1922-23

BY HENRY V. ASHLEY [F.]

[*Read before the Royal Institute of British Architects, Monday, 5 February 1923.*]

IT is at the invitation of the President that I am here to review the work submitted this year for the prizes and studentships of the Royal Institute. It is a privilege I very much appreciate ; it is also a responsibility which I fully realise.

Reviewing the work as a whole, I believe it to be better both in quantity and quality than that of last year. That is all to the good, but I feel sure the competitions are by no means as keenly contested as in pre-war days ; I have had the records from 1899 to 1913 looked up, and I find the average number of competitors for the Pugin to be ten, compared with two this year ; and for the Tite eighteen, compared with nine. This falling-off cannot by any means be attributed entirely to the war—there are plenty of students and plenty of schools—it is due, I believe, in quite a large measure, to these very schools and their students working in water-tight compartments. They have their own prizes and studentships, and in many cases the intensive

training leaves the students too tired, or with neither time nor inclination, for independent study or research. It is a great pity. I sometimes think that students do not fully realise the opportunities presented to them in the prizes and studentships of the Royal Institute, for, consider : in the first place, they have the opportunity of paying homage to those architects now passed away, who in their time achieved great things and who founded these studentships for the advancement of architecture ; in the second place, they have the opportunity of carrying on the traditions of those elder students, the practising architects of to-day, who have always desired to uphold the dignity and high importance of this Institute ; and, lastly, by their own studies and researches, they have the opportunity of proving to the world how good a thing it is to advance the profession and practice of architecture. Added to all this there is the chance of travel and study at home and abroad.

In general terms, the studentships may be taken in

REVIEW OF THE WORK SUBMITTED FOR PRIZES

two divisions, namely, those involving study of and research into existing building work, and those involving the creation of something—or design. In the former we count the Measured Drawings, the Pugin and the Owen Jones ; in the latter, the Tite, the Saxon Snell and Grissell Prizes, with the Institute Silver Medal for Essays, also, I suppose, the Henry Jarvis Studentships. I like to separate them in this way because the student by his research learns how the builders of all ages built, how they laid out, devised, constructed and embellished their buildings. Only by this means can the student hope to succeed in originating and creating buildings of his own ; and the studentships offer him excellent opportunities ; there are few obstructive conditions, no difficult clients, and the awards are made by sympathetic Juries. With the verdicts of the Juries this year I can honestly say I agree ; although I have arrived at the result somewhat more laboriously than they—I envy some of them their quick grasp of a problem. I think I may say that I have carefully examined every drawing exhibited, and in doing so I have endeavoured always to put myself in the position of each competitor, and to be in full sympathy with the student. At the same time I must criticise impartially, give praise where praise is due, and not veil too heavily the defects as I see them. I feel sure this is the spirit in which students would expect me to deal with their efforts.

Taking, therefore, research work first, we have the Silver Medal for Measured Drawings ; for which there has been submitted perhaps as fine a set of drawings as has ever been sent in, comprising a complete survey of a group of classic buildings, the Campidoglio at Rome. There is little but praise due for the work exhibited ; it is a most careful study in plan, elevation and section, and the drawings, eight strainers in all, are most beautifully rendered in a very intelligible manner, and the sketches and measurements taken on the spot are all just what they should be. I particularly appreciate the half-inch scale and full-size details of the museum section, these are line drawings, with no colour, and full of dimensions—they strike you at once as measured drawings, while the others, at first sight, might be designs for the Tite or Soane. I must also mention the drawing of the Lateral Pavilion by Vignola. This is a charming little work, and the drawing is beautifully composed.

I commend these drawings to the students as examples of what architectural drawings should be, and I congratulate the author, Mr. Dougll, whose work so entirely merits the medal.

"Diligente" submits drawings of the Palazzo Horne, at Florence, by San Gallo—originally belonging to the Corsi and Alberti Families, it was bought and restored by Herbert P. Horne, and presented by him to the City of Florence in 1916. It is a most refreshing piece of building, quaint, and full of things which interest ; the

drawings are not as carefully executed as they might be, and the building, in reality, is more attractive than it appears in this survey. The author's measured sketches and plottings on the site lack method, and are rather scrappy—he has not given to the study of this delightful building all the care and attention that it deserved.

The Chapel of St. Anselm in Chester Cathedral is the subject chosen by "Cheddar," exhibiting Late Gothic work with fan vaulting, also some Jacobean work. It was a difficult subject to measure, and I think the author would have been better advised to make half-inch scale drawings instead of quarter-inch ; this latter is too small to indicate the work in sufficient detail. The sketches and measurements taken on the spot are rough and not very complete, and the full-size details are meagre. "Cheddar," however, has taken pains, and has succeeded in producing a very carefully worked out set of small-scale drawings, cleanly drawn, but a little hard and unsympathetic.

There are only two entries for the Pugin Studentship, and when we remember the keen competition there used to be in past years, when twelve or fifteen competitors was not an unusual number, the falling-off to-day is very disappointing. Possibly students have not had sufficient time since the war to get together sufficient material, nevertheless I am sure I am voicing the opinion of many architects when I say how greatly it is hoped future years will bring back the old-time rivalry and reinstate the Pugin Studentship in its rightful place.

From this I do not wish the winner, Mr. Thorpe, to think that, because he has not encountered much competition, he has not well earned the distinction. I can assure him that the standard he has reached is a high one, and that his drawings are excellent.

Mr. Thorpe has made a very complete study of a delightful mediæval church, All Saints, Bolton Percy, near York, one-eighth-inch scale drawings with half-inch and full-size details, the whole cleanly and sympathetically drawn, and precisely in the manner in which such a survey should be developed. He has also a beautiful drawing of the eighteenth century pulpit in the same church. The measured drawings of the monument in York Minster are not so interesting, but the detail of the wrought-iron gates to the choir aisle is beautifully rendered ; while the drawings of the lectern and pulpit in All Saints Pavement, York, are fine studies, well indicated. Finally, I think a few freehand sketches would have been a valuable addition to the exhibit. I can assure Mr. Thorpe that had there been more competitors, he would still have been a very serious antagonist. I congratulate him.

Mr. Heritage is not a serious rival. He loses interest too quickly and gets tired ; his work at Winchelsea is a difficult though interesting study. His small-scale drawings are not too good ; the tracery particularly

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

is not well indicated, but the inch-scale details of the east and south windows are more successful; the drawings of the three tombs in the Farncomb Chapel have mastered him instead of his mastering them. The freehand sketches at Hastings and Winchelsea are too hastily done and lack crispness and finish, and I must say that the ink outlines on the pencil drawings detract from their value.

Mr. Heritage must not be discouraged, he must try again, but I would recommend him to take more trouble, select less ambitious subjects at first, and go steadily through with them to completion.

The Owen Jones Studentship has been awarded to Mr. C. H. Filley, the only competitor, but he well merits the prize. The chief work exhibited is Indian decoration, and the drawings show good technique of water colour.

It is just a point whether the time spent on so much repetition work is worth while. The colouring of the Turkish tiles is very good, showing the quality of the materials and doubtless faithful to the original, but the study, Della Robbia, is weak and unconvincing. The drawing of the ceiling decoration suffers somewhat from lack of study of Western art, which is likely due to over-concentration on Eastern work.

Coming now to my second division of the work, I will commence with the Tite Prize.

Nine designs have been received for this prize, the subject being an Italian Embassy in a European capital, on a site of 150 feet frontage, 450 feet deep, and situated on the side of a hill sloping at an angle of 15 degrees upwards from the street, which is 30 feet wide. The principal requirements also are carefully laid down in the programme; from these it may be inferred that the jury had in mind the Genoese Palace as a basis for the design of the Embassy, but this does not seem to have influenced certain of the competitors.

Many difficult problems are involved, and no single competitor has mastered all of them. The grand approach and staircase up to the reception suite, the reception suite itself, the management of the entrances at the street level, and the position of the Ambassador's quarters are crucial tests in stately planning and composition.

The designs of "Tugga," "Poffergy" and "Tishy" most nearly approach the right solution. The authors, I think, must have often met and reported progress during the preparation of their drawings, or possibly they have studied the same books, since the similarity of plan cannot be accidental. Mr. J. C. Shepherd, the author of "Tugga," who receives the prize, has well earned the distinction; his planning generally, the layout of the principal floor, his arrangements of the Ambassador's quarters with its terrace garden, and his treatment of the longitudinal section, are all very ably devised and logically worked out. The elevation, however, is, I think, not so successful; the reception suite coming out to the front might have been more marked

in his design, and the treatment of the windows in the top storey with the main cornice and parapet over is not very satisfactory. Mr. Shepherd might with advantage have spent more time in perfecting the external treatment of his otherwise brilliant scheme. The drawings are finely executed, but I should like to have seen a little more care bestowed on the drawing of the elevation; its colouring, too, is not very successful.

Miss Helen Chambers, under the pseudonym "Poffergy," obtains and entirely merits the Honourable Mention, for a fine design, excellently drawn. The planning of the reception suite entirely at the back, facing the terrace gardens, with the Ambassador's principal rooms on the same floor and on the street front is very satisfactory, and equal to the winner's; but the approach and grand staircase is not so good—to have to climb 46 feet from the street level to the reception suite is too much, unless perchance by a moving staircase, which it is evident would not be a very dignified method. The entrances, however, are well managed, and one is able to drive in, round and out without having to pass through the garage, which point is a minor defect in the winning design.

In many respects I think "Poffergy's" elevation is more effectively treated than the winner's, it is more on traditional and Italian lines, and it expresses the plan. I congratulate Miss Chambers on her success; she is the first lady student who has so nearly carried off one of the big prizes of the Institute. In connection with this, I have the President's permission to say that a client of mine who is very interested in the education of women has only recently given me some fine architectural books for presentation to a lady student, and these I shall have pleasure in handing to Miss Chambers in due course, if she will be pleased to accept them.

The design submitted by "Tishy" is treated very similarly to the other two, but in this case the ball-room is placed on the street front, this is perhaps not such a good arrangement, and the treatment at each end of the ball-room is not very convincing. The plan, however, does allow of a better suite of rooms on the garden front with a real reception room, whereas in the selected designs a wide corridor at the head of the grand staircase has to serve for reception, which is not so good. The Ambassador's quarters are schemed somewhat similarly to the winner's, but they are no less than 74 feet above street level. The elevation well expresses the planning, and is ably designed in a traditional manner; it is well drawn and beautifully coloured, as also are his other drawings.

I commend the author for his effort; that he will succeed in due time I have no doubt; for my own part, I should have recommended him for an Honourable Mention also. This is my only little difference with the Jury.

The design by "Geneva" is a most interesting

REVIEW OF THE WORK SUBMITTED FOR PRIZES

study—I am rather fascinated by it—true, it is not quite in the Italian manner in elevational treatment, but the longitudinal section and the elevation exhibit, in a marked degree, much refinement and ability ; the planning, however, is too loose and not suited to the solution of the problem. The drawings are finely executed and coloured, particularly the section and elevation, but it is an unnecessary labour to repeat the garden layout on the upper-floor plans ; I would rather the author had given the time thus expended to greater study of the general scheme, and particularly to the design of entrances from the street.

The design submitted by "B. O." is cleverly drawn, and the section is interesting, and has good points. The elevation, however, is too sumptuous, without character of the right sort ; the planning also is not sound, too much room being taken up by the principal staircase, resulting in the reception suite being cut in half, as it were.

"Utinam" has not sufficient knowledge of his subject. His design is by no means on traditional lines, and is immature ; he takes up far too much room with the vestibules, which are some 30 feet by 40 feet in size, and this involves him in no end of trouble ; his elevation is far from right. "Utinam" must study good examples much more closely than he has done.

The design submitted by "Sebastian" does not look like an Italian Embassy ; it is not sufficiently worked out, particularly the gardens. "Sebastian" has some hard work ahead to ensure success.

The same criticism applies to the designs submitted by "Blue Square" and "European." "Blue Square's" planning is feeble ; his elevation, however, is restrained, but rather dull. "European" regards the whole problem as a domestic one almost entirely ; he has no reception suite and no grand staircase. The whole is uninteresting, though quite nicely drawn.

Before concluding my criticism of the Tite Prize designs, there are two points to which I must draw attention : first, with regard to the setting back of the building from the frontage-line as shown by many of the competitors. It is obvious, of course, why this has been done (blame the motor car), but I do not think it was anticipated by the jury who set the problem, and I suggest that sufficient consideration has not been given to the disastrous effect which might result to the building if adjoining properties were brought right out to the front. It cannot be taken for granted that these buildings would be set back also, for then the whole problem is altered, which postulates a building in a street 30 feet wide. My second point takes notice of the section of the terrace garden. Many of the competitors have not realised, I think, that, looking from the reception rooms or the gardens immediately outside, observers could not see these terrace gardens and cascades, their vision being impeded by the building up

of the terrace at its starting point ; the height of this starting point has not been properly related to the building itself—it is a rather serious defect, for the vista right up the gardens should be most impressive.

The subject of the Henry Saxon Snell Prize is a maternity home and infant welfare centre in an industrial-class district. The site is 200 feet square, with streets on the north and south sides. For a working-class district this site appears to be unduly large ; as a result, there are somewhat fanciful lay-outs and gardens, even pergolas.

Of the eight schemes submitted, undoubtedly the one by Mr. Theakston, under the motto "Ad Rem," has been quite properly placed first. It is very skilfully planned, with due regard to economy, and if built, a really workable scheme would result. The elevations, too, are quiet and restrained, but a little dull. His planning of the wards, labour rooms, etc., all on the ground floor, and the nurses' and staff quarters on the first floor is good, and the whole is well lighted, and in the main well ventilated. The welfare centre is well placed and planned with the resident nursery for children on the floor over. The isolation quarters in a separate block are also well planned, but I do not see the necessity for the emergency isolation.

The defects, such as they are, arise from cutting down the accommodation in some of the working parts : for example, the laundry and kitchen are too small, and the service from the latter to the wards is not good ; some of the windows on the east and west sides of the building are too near the boundary for an industrial district ; finally, the labour rooms are somewhat small. The author cannot make up his mind on the debatable point whether or not sanitary fittings shall be in the operating room or in a room opening off same : he provides for both methods. I do not wish to magnify the defects—all of them could easily be rectified without vitally affecting the otherwise excellent scheme. I am sure the author has a real grip of his subject.

The scheme sent in by "Crane" has rightly, I think, received an Honourable Mention. Seemingly, the main thing disregarded in his design is economy ; the area covered by his building is, I should think, double that of the winner. The scheme, however, is excellently worked out, and the plans beautifully drawn, but the elevations lack interest. His wards are scattered on two floors, and his kitchen and laundry over-extensive. He has also a wrong idea of the number of staff required. He provides 30 for a Home for 20 beds. Nevertheless, I think, the author, Mr. A. J. Brown, has made a careful study of the problem.

The design submitted by Mr. Norburn under the pseudonym "Roona" has also received an Honourable Mention. For my own part, I think "Roona" needs to study his subject much more than he has done ; his planning is careless and without motive or inspiration ;

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the corridors are badly lighted and ventilated ; his isolation is inadequate, and he has a night nursery for twenty babies close to the wards, a truly awful thought to any matron. His method of ventilating the lobbies to the sanitary offices is a desperate effort, and would be regrettably non-effective. The kitchen and laundry are, however, more suited to the requirements than in the case of the former designs, and the elevations, too, are satisfactory and pleasing. I recommend "Roona" to try again, and in doing so to study his subject more, and to take more trouble with his drawings. He has ability, but he must learn that to succeed is not always a simple matter.

The design submitted by "Solomon" does not exhibit all the wisdom of his namesake ; his scheme does not comply with the conditions ; there are very serious defects in planning, and his elevations do not help him. Moreover, "Solomon" should learn to draw better.

"Ursa" has not sufficiently absorbed the problem, his block plan looks like an ill-planned hospital, and his detail planning does not improve matters. He should have studied this particular type of building far more than he has done, and not spent so long a time on drainage schemes.

There are three further schemes submitted, but I do not think these can be considered useful contributions to knowledge, and therefore they do not claim further comment.

There are four entries for the Grissell Prize, the subject for which is a design for a warehouse with certain requirements.

The scheme prepared by Mr. P. Morrey under the motto "Rivet" has rightly gained the first place. It is a good example of what a warehouse should be. His steel framework and the details thereof look right, although the beams seem rather closely spaced ; his calculations, too, are voluminous, and I am credibly informed that they are sound and properly worked out. I only quarrel with "Rivet's" staircase windows on the front elevation ; he has not mastered an oft-recurring difficulty, whilst his planning of the sanitary accommodation is very defective, in fact each of the competitors in this competition has made inadequate sanitary provision for his scheme, such as would not pass any authority.

"Bluzz" submits a scheme on somewhat similar lines to "Rivet," but his constructional details are not so well worked out. The elevations are quiet and restrained and suited to their purpose. The arrangements for loading and unloading are not so good as the winner's, and there is no entrance other than for warehousemen.

The design submitted under motto of a red Fleur-de-Lys is not good, particularly the elevations, and the whole is drawn in a slovenly manner. The author gets into difficulties with his planning by placing his

entrances both for people and for goods on the front ; he has, however, worked out full framing plans, details and calculations.

"Syntithemi" has far too much architecture of an indifferent kind in his elevations, both back and front—bay windows with battlements do not suggest a warehouse. He has worked hard at the problem, but one entrance for every kind of traffic is not sufficient. The detail drawings of the steelwork are very carefully drawn, and his calculations very complete.

My study of the schemes submitted for both the Saxon Snell and the Grissell Prizes compels me to suggest that future competitors should endeavour to produce from their plans buildings of greater architectural merit. Hospitals or warehouses need not, from the nature of the case, be ugly ; they can be expressed in well-balanced and well-proportioned structures in the same way as in other buildings of a different order.

I now come to the Essay Prize. Mr. Lionel Budden, under the pseudonym "Aristus," is the winner of the Medal for a thesis entitled, "An Introduction to the Theory of Architecture," and I notice that the jury recommend its publication ; they also state that they have been impressed both by the deep research and originality shown, and by its cleverness of thought and expression.

I have read the essay carefully and with much enjoyment, and I concur entirely with the jury's opinion of Mr. Budden's work. Generally he takes Croce's doctrine and deduces from it a theory of art in general and architecture in particular ; thus Croce's "intuition" becomes the architect's conception or idea, and his "externalisation" becomes the architect's expression signifying the process of external design.

The author does not regard his essay as an elaborated philosophy of architecture, but simply as an introduction. Its aim has been, he says, to offer a fresh path of approach to the subject, and to suggest a new treatment of it, and in a very able manner does he succeed in his programme. The whole essay is most revealing, and in every way most readable ; it should without doubt be the forerunner of a more elaborated philosophy of architecture.

The essay submitted under the pseudonym "Pofergy," entitled "Flats," is a complete review of the subject commencing with the earliest records of flats in 500 B.C. to the present time, concluding with the opinion that it is improbable that the "Mansions of the Blessed" are actually blocks of flats. It is a comprehensive essay dealing with flats in this country, in America and on the Continent, from the point of view of the architect and the building speculator. The author only digresses when venturing on the housing question generally. The plans given by way of illustration are not sufficient in number, and there are no

VOTE OF THANKS

original designs embodying the points made. The style is easy and unassuming, but certain slangy expressions might with advantage have been omitted.

The essay on the Architectural Problem of the Shops deals with stores in this country only ; it shows original research and design of considerable merit, and the illustrations are well chosen. The author's own drawings of a large store building are good and well worked out. The essay is clearly written, but a little tedious.

"The Study of Sound in its Relation to the Design of Buildings" is the title of the essay submitted under the motto "Korea." It is a broad survey of the whole subject of acoustics, somewhat sketchily treated, but with some wondrous equations and coefficients which must surely solve all our difficulties in this matter. The essay is clearly arranged and written, but with little original research. There is no index and no bibliography.

The essay sent in under the motto "Petivi" has for its subject the life story of Pirro Ligorio, who has been aptly described as "the most genial artist of his time"—like so many of his contemporaries of the sixteenth century he was artist, architect, engineer and antiquary. It is a biographical more than an analytical study of this architect's work, and describes in a most interesting and scholarly way the intrigues of the time and how Ligorio combated them, and the illustrations indicate his skill in construction and capacity in original design. The essay, though probably too slight for the Essay Medal, is well written, and I feel sure that the author knows all that is to be known about this genial artist.

I have purposely left the essays to the last, since, in a somewhat unusual way, I purpose finishing my review of the students' work by quoting from Mr. Budden's very inspiring essay, as follows :—

"The early training of an architect should involve purely formal studies in grammatical and stylistic composition, he should be drilled in the correct use of technical forms. When he really has something to express, he will then, as a result of his practice in abstract composition, be able to state it clearly and with precision.

"If the architect will sedulously occupy himself in seeing that his work faithfully and fully represents his conception, truth and beauty may safely be left to look after themselves. The purpose of the architect is to make his audience see what he has seen—the vision can only be captured when it is wholly released."

It is for us—architects and students—to see that the vision is worthy of our high calling.

The President, in proposing a vote of thanks to Mr. Ashley, said that they had listened that evening to one of the most scholarly addresses on the students' drawings that had ever been given at the Institute, and that the speaker had covered the whole field with a truly scientific insight.

Self-expression in Art

BY C. F. A. VOYSEY.

Although reading the newspapers as little as possible, I am yet impressed by the frequency with which we meet the statement that "An artist must express himself." Everytime it irritates, because so mixed are the meanings attaching to such a message. The writers who mean by it to emphasize the importance of absolute sincerity, are of course right : but to the young mind it may mean egotism, which is the most poisonous perversion of individuality. The very wish to express oneself is corrupting to the soul and intoxicating to personal vanity. "For he that would save his soul must lose it." The true and healthy sense in which the message "express thyself" may be wholesome and beneficial, is when it is the outcome of our true love and admiration for fundamental ideas and principles. If in our work we express a love of truth, by avoiding shams and showing frankness and sincerity, we are not expressing ourselves, strictly speaking, but the ideas and sentiments common to all good men. The same may be said of other qualities like dignity, grace, restraint, simplicity or—magnificence and generous plenty. All these are proper objects of thought common to mankind, and the fit subjects of architectural expression : and to the properly tuned mind, of infinitely greater importance than any personal tastes or predilections.

Personal tastes and preferences should not be allowed to obtrude themselves when we are striving to build for another. Let us coax and persuade a client if we can, win his affections for that which is noble and of good report, but do not let us spend his money on our own personal fads. Such sinking of ourselves need not mean any sacrifice of self-respect. It is not doing anything of which we can possibly feel ashamed ; it is the recognition of our position as servants.

If, however, we are asked to produce anything which conscience pronounces to be wrong. If we are asked for something we think ugly, or in any way harmful, then in very faithfulness to fundamental general principles we must refuse emphatically and be prepared to suffer for such refusal, if need be. Such individual faithfulness for conscience sake is not egotism. A little clear thinking will show us how full all architectural expression is of the general thought and feeling of the country and time of its production, and how all great periods show fundamental and leading principles in thoughts and feelings ; while many personal eccentricities and private tastes and fancies spring up like fungi and die in a day, proving how little value there is in that which is purely our own, and that only noble thoughts, ideas, and feelings, to which we all can aspire are of lasting value. It is a sad pity that March Phillips is not more often read and taught in the schools. For he elaborately shows, what I have been trying, but feebly, to express.

The Preservation from Decay of Stone on Buildings*

BY PROFESSOR A. P. LAURIE.

THREE has been a great deal of discussion lately about the question of stone decay, more especially in connection with ancient monuments. The problem is not the same as that of preserving a new stone. If we take a fresh piece of stone from the quarry and use it in a building, and if it is a stone which is very easily attacked, like some of our freestones, we might treat it with certain preservatives, and so increase its life, and in the same way we might increase the life of sound stone in old buildings ; but the problem of the decayed stone in old buildings is very much more difficult. We have there the problem not only of preserving from future decay, but also of reconstructing the stone itself and of replacing the lost cementing material by some new cementing material, and in many cases the building is a ruin exposed to weather on every side. That is, obviously, a much more difficult problem. There was a time—I am afraid a time that is not altogether past—when our ancient monuments suffered terribly from restoration. Old carved work and old mouldings were not only cut out and replaced, often very carelessly and with unsuitable material, but, in addition, when the stone preserver came along he first began to scrub with a wire brush and take off everything he could, and when he got down to the raw stone put on his preservative. This is much the same problem as the one discussed in my lecture on the restoration and preservation of pictures. It is not altogether a scientific problem, it is to a certain extent an æsthetic problem as well.

There are also obvious limits to what a stone preservative can do. For instance, if there are fissures in the stone, and the surface is treated with preservative, the stone will come away in lumps presently because of the cracks behind ; or if the stone is falsely bedded in the first instance it will come away in sheets of considerable thickness.

The problem, therefore, is not a problem for the chemist alone, but for the architect, too, for he has to decide what can be done to preserve what remains of artistic value. He has to say to the chemist : " Will you tell me to what extent you can, by the soaking in of solution, prevent further decay and reconstruct the stone and replace the natural cement that is lost ? " The chemist having told him exactly how far he can go, the architect must consider each case on its merits to decide whether he is going to replace, whether he is going to fill up the cracks through which water may penetrate, or whether he is going to treat with preservative and so get his result. There is, however, one

treatment which is quite unjustifiable—the treatment with the wire brush. Far better leave the carving and mouldings alone.

One thing to which not very much attention has been given yet, and much more ought to be given, is the question of the filling up of cracks. More study ought to be devoted to the filling-up of fine cracks so as to prevent water getting in and disintegrating the stone.

I have had the advantage, thanks to the kindness of the Office of Works, of experimenting for some years on Scottish buildings and on some English buildings. In giving me that facility they laid down a condition which I think is absolutely sound from the point of view of experimental research. They said : " You are to take the very worst decayed surfaces you can find, and you are not even to brush them with an ordinary brush, but take them as you find them, and either by spraying or splashing, treat them with preservative, and see whether you can reconstruct the most rotten stone surfaces that we can find for you." That is a perfectly right and wise principle to go upon, because what we want to find out from an experimental point of view is whether we can devise any preservative that is of any use at all, and if it is useful, what the limits of its usefulness are. The extreme conditions under which we have been working in Scotland are quite sound from the point of view of experimental results. In the case of Elgin the experiments I have made have been on absolutely rotten surfaces. We have to begin there and work back from that and see where our preservative will help us. The general principles to be followed are that it is an architect's problem how far replacement is necessary ; it is a chemist's problem to tell him how far he can go with his preservative ; but it is quite right in tackling an experimental problem that the very worst cases should be given to the chemist in the first instance. I need hardly say that never under any circumstances will the Office of Works permit the use of the wire brush.

Another point I might mention here is that it is absolutely essential, if we are to make any progress at all, that photographs as near full size as possible should be taken at different stages. In Elgin we have experimented with one group of mouldings, leaving the other set untreated ; we have taken photographs, and every summer we have compared the photographs to find out exactly what has happened. One of the reasons why more progress has not been made in this matter is that, in the past, whole surfaces have been treated. If you treat small portions at a time, leaving other portions untouched, and take photographs as you go along, it is possible to obtain results that may lead to definite conclusions.

* A Lecture delivered by Professor Laurie at the Royal Academy on 22 November 1922.

THE PRESERVATION FROM DECAY OF STONE ON BUILDINGS

We will now discuss very shortly the main causes of stone decay. We have, in the first place, the effect of wind. Wind, carrying sand, acts as a sand-blast and wears away the stone. Some remarkable examples of that can be seen in the Tower of London. We have heat and cold, expansion and contraction of the stone. In the case of granite, where you have the expansion with change of temperature of different kinds of closely packed crystals with different co-efficients of expansion, fine openings are formed through which moisture and injurious gases can enter. There is also the action of ice. You know, of course, that when water freezes it expands. If, therefore, we have a stone saturated with water, and it is caught by the frost, the ice expands and breaks up the stone. The main disintegrating agent that we have in a country like this for the breaking down of rocks is the action of frost. The extraordinary thing to me is that frost does not do more damage. I have discussed the possible reasons for this elsewhere. Another disintegrating agency is the carbonic acid gas in the air. If we pass carbonic acid gas through lime water we get a precipitate of what is known as carbonate of lime. Carbonate of lime is the main constituent of limestone, and is in a great many cases the binding material. It is a very common binding material for sandstone in a crystalline form known as calcite. If we put some carbonate of lime into a vessel suspended in distilled water, and pass carbonic acid gas through it, we notice that the solution gradually clears. This is due to the fact that carbonate of lime is soluble in an excess of carbonic acid gas. There is carbonic acid gas in rain water. It is present in the air, and this solution of carbonic acid gas acts upon limestone and gradually dissolves it. These are the main natural causes we have of stone decay.

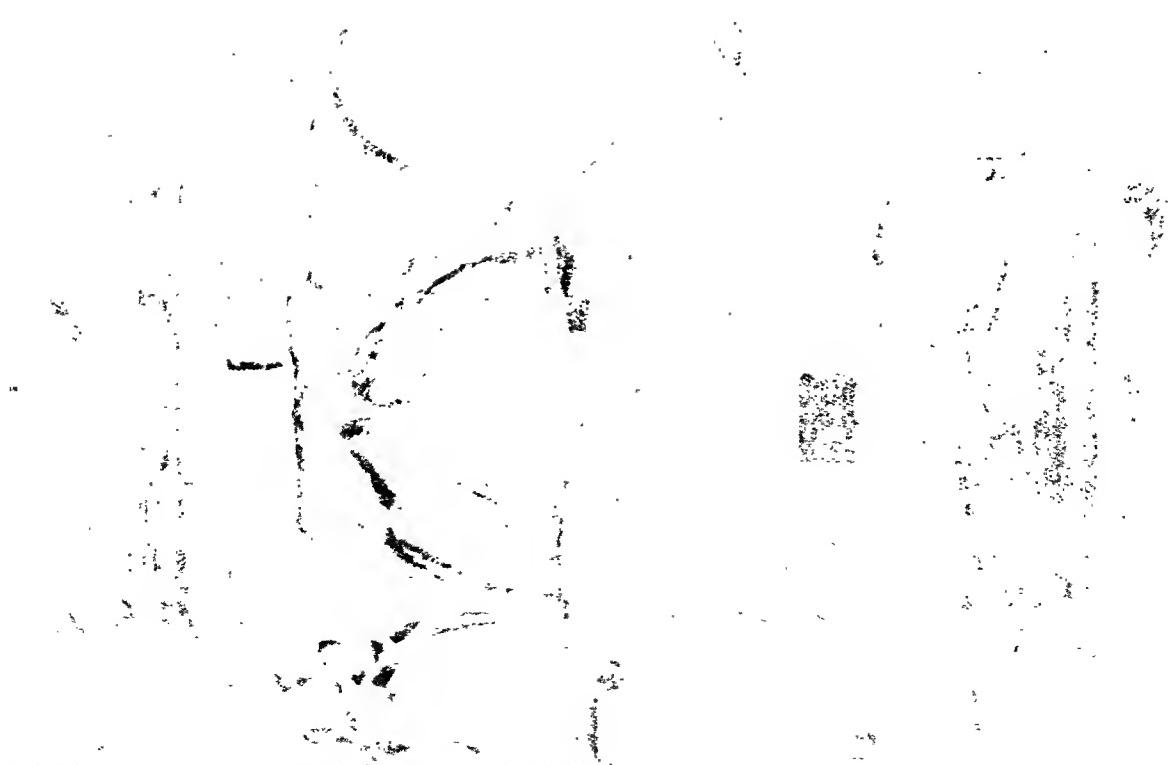
That is, unfortunately, not all that we have to suffer from under modern conditions. The coal that we burn, owing to the sulphur it contains, pours into the air sulphur compounds, sulphurous acid, sulphuric acid, and ammonia sulphate. These powerful agents act upon carbonate of lime. If you put an acid into a vessel containing suspended carbonate of lime the whole liquid will at once clear, showing the solubility of carbonate of lime in the acid. These acids, then, dissolve carbonate of lime—*i.e.*, they will dissolve limestone. If they did that only it would not matter so much, but the result of the action of these sulphur gases on the limestone is to form a compound known as gypsum or sulphate of lime, which is the same thing, which, when heated, forms plaster of Paris. This sulphate of lime crystallises, and in crystallising exercises tremendous pressure and breaks up the stone. As an experiment I took a little block of stone $2\frac{1}{2}$ inches each way, which I first of all saturated with a certain solution, and then produced the conditions to get an expansion of the infiltrated substance comparable with

the effects produced by the crystallising of sulphate of lime. The stone was cut clean in half by the pressure exerted inside and at the same time great flakes were thrown off all round the edge. Yet the solution had made no chemical attack on the stone. Much more harm may be done in this way than by mere dissolving of the surface.

The problem of sandstone and the problem of limestone are somewhat different, and while we have every intermediate condition between Caen limestone—such as was largely used in Westminster Abbey—to Craig-leith sandstone, we can, roughly speaking, divide stones into two divisions, sandstone and limestone. We can divide sandstone roughly into two other divisions : sandstones which have carbonate of lime as their cementing material, and sandstones which have an insoluble cement such as silica. There are other cementing agents, but these are the most important for our present purpose. Sandstone consists of particles of quartz which are practically indestructible ; consequently, if it comes to pieces, it comes to pieces because the cement which holds it together has perished. If the cement is a silica cement we have a very durable sandstone, because it will not, at any rate, be attacked chemically, though it may be mechanically. In some cases it is not so durable as it should be because there are not enough connecting points. The Elgin stone is a stone with a silica cement, and therefore is not easily attacked chemically ; but as the connecting points are very few it is a stone which yields readily to mechanical attack, such as frost and the infiltration and crystallisation of sulphate of lime.

That gives a rough classification of limestones and sandstones. In the case of the sandstone we have already a material on which the chemist can build, while in limestone we are dealing with a material in which the stopping of stone decay is very much more difficult. It is also known that some limestones are much more durable than others for reasons which are, I think, to some extent still obscure.

Let us go on to the question of stone preservatives. I think I am right in saying that in the last twenty or thirty years no really new and original material for dealing with the question of stone decay has been suggested. I have examined large numbers of the proposed materials, which can be divided roughly into three groups. There are, first of all, the silicates and silico-fluorides. The principle upon which they act is that lime in combination with the silicates gives an insoluble precipitate. If you take some lime water, for instance, and add a little silicate of soda to it, a white precipitate is at once thrown down. Silico-fluorides are even better from a chemical point of view for the formation of insoluble compounds of lime. If, then, you take a limestone or if you take sandstone that contains calcite you can convert a part of it into an



214

STONE SPLIT IN HALF AND SCALING
Result of 48 hours' treatment with an expanding substance with no
chemical action.

PORTION OF ELGIN CATHEDRAL
'The arches show the destruction caused by a thin coating of cement.
The columns show the surfaces which are crumbling into loose sand



DESTRUCTIVE ACTION OF A LIME WASH TEARING AWAY THE STONE
The untreated portions are fairly sound, showing ordinary surface decay

STONE IN TINTERN ABBEY COVERED WITH LOOSE SCALES
One half cemented together with silicon ether.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

insoluble substance, hardening the stone to a certain depth and partially converting it into an insoluble material. At the time when the House of Commons was built the chemist spoke highly of silicates. He said you only had to treat the stone with silicate of soda and you could make it permanent. The results were most disappointing, and silicate of soda disappeared from the list. Then silico-fluorides came into favour. They have a certain value for the hardening of certain surfaces, and we have the high authority of Professor Desch for saying that the silico-fluorides harden the surface and lengthen the life of stone, but I have found them of little value for re-cementing rotten sandstones and limestones. We have a whole variety of mixtures of paraffin wax, of oil, of resin, and insoluble soaps of which the permutations are endless, but as far as my own tests go I have not found any of these solutions satisfactory from the point of view of reconstructing a decaying stone surface. These various things are sold as proprietary articles, and one of the first conditions of any scientific research should be that the composition of the proprietary article should be made known before any experiments are made with it. Of course, in a great many cases we can analyse them, but there is no reason why we should be asked to do that. None of these I have tried really solved the problem sufficiently satisfactorily to justify us in saying that we can treat the rotten stone of an old building and preserve it so that it will stand for the next two or three hundred years.

The experiments that I made myself on stone preservatives soon made me realise a very great danger which may result from their application. The first question the chemist has to ask himself is, not whether the stone preservative is going to make the stone last longer, but whether the stone preservative is going to destroy the stone. The question we have to ask, after soaking the stone with a preservative, is whether the solution as it dries is going to leave the preservative in the pores of the stone or is going to deposit itself near the surface. Every solution has to be tested from that point of view. In a great many cases it comes to the surface. What is going to happen? The preservative will not prevent water getting in. Water gets in and dissolves some of the substance of the stone, and crystals are formed behind the layer of preservative because the water containing dissolved material cannot get out to crystallise on the surface. The result is that the stone comes off in flakes. You have to be very careful that your stone preservative is not going to do more harm than good. In the same way you can get a water-lock owing to a preservative which keeps the stone saturated with water, so that it breaks up from the action of frost. It is for that reason that the architect always quite wisely says the stone ought to be able to breathe.

An architect can easily test for himself the value of a

preservative for re-cementing rotten stone. Take a little sand and make a little sand-brick with the preservative and allow it to dry, and see whether it is going to dry hard. If your brick dries hard just drill a little hole with the point of a knife, and see whether the sand pours out from the inside. If the distribution of the preservative has been right, the brick should stick together all through, though it will never be quite so hard inside as at the surface. If the preservative is coming to the outside as it dries, you have only to make a little hole and you will be able to pour out the sand. If it stands these tests, soak the brick in water, and see whether you have got a chemical binding there or not, and if you find it stands these three very simple tests, it may be worth while giving it a further trial outside. Besides sand, you can try some of the stone you wish to preserve crushed into a fine powder and mixed with the preservative.

We have been experimenting for some five or six years now in Scotland with thin solutions of resin, and have obtained some interesting results. The mistake made in the application of resin in the past has been that the solutions have been too strong, and, consequently, they have penetrated a very little way and produced scaling. The solutions should not be stronger than 15 per cent. to 5 per cent. of common resin in toluol; the denser the stone the thinner the solution. Penetration is also helped by treating the stone first with the pure solvent, and then following up with the resin solution. If the stone is shiny after treatment sponge over with the solvent, and if darkened sponge over with lime water. In the case of close-grained sandstone, excellent results have been obtained so far, but in the case of limestone sufficient penetration has not been obtained, and in the case of very coarse-grained open rotten sandstone surfaces, while the stone no longer comes away in large pieces after a winter's weathering, a slow surface decay goes on owing to the destruction of the resin itself by the action of the weather. In some cases the surfaces have actually hardened with time. In no case has any injury been done or scaling caused. The penetration aimed at was about one inch, and the amount of resin applied sufficient to close about 20 per cent. of the pores so as to enable the stone to breathe. For interiors where the stone is sufficiently porous it should be very successful.

I should like to say a word or two about lime-washing, which is now very popular. It seems to me that in a great many cases the idea of lime-washing is sound. You protect the surface of the stone with a coat of lime-wash, and it may very well preserve the stone. On the whole, I think there is a great deal of evidence to show that lime-wash was used in mediæval times, and that lime-washed buildings have stood the test of time very well. Of course, some people object to it on æsthetic grounds—they don't like the look of a lime-washed

CORRESPONDENCE

building. My feeling is that if it really can be proved that lime-wash is going to preserve, even though it does not reconstruct, then we must put any question of æsthetic feeling on one side. The main thing we have to do is to save the ancient monuments. I was at Tintern Abbey this summer, and heard some people say how beautiful it was with the ivy growing all over it, and what a pity it was that it had been removed. Well, of course, if you want to preserve Tintern Abbey you must take off the ivy.

There is only one thing I want to say about lime-wash, and that is a word of warning. I saw a case of lime-washing the other day which was done in 1914, and in which, apparently, the effect had been to tear the stone all to pieces. Part of a moulding had been treated with lime-wash, and had fallen to pieces, while the untreated portion of the moulding was all right. There it was, not only scaling off, but taking one-eighth to one-quarter of an inch of the stone with it. It is quite possible for lime-wash to act as a destroyer, and I think the explanation is this. The building was a ruin of porous sandstone, and had only been lime-washed round the moulding. It was exposed to rain and weather, the lime-wash did not cover the whole of it, and the result was that there was plenty of room for water to soak in ; the water formed a water-lock behind the lime-wash, and there had been freezing, probably, and breaking-up of the stone. If you take a building with a straight wall and a roof on it, lime-wash could, I believe, be applied without the slightest danger. If you have a pinnacle of stone exposed in all directions you must consider whether you are going to do more harm than good by locking in water. This, again, will depend on the porosity of the stone. Lime-wash, while preserving close-grained limestone, may well destroy a porous sandstone. Therefore, I think that lime-wash, though there is a great deal to be said for it, needs careful investigation. You must be careful not to let water in to form a water-lock behind the lime-wash.

In cases such as roofed buildings where lime-wash can be safely used, and where the stone is sufficiently porous to absorb weak solutions of resin, I believe something permanent could be done by soaking the rotten surfaces first with a weak resin solution, and then lime-washing the whole. I prefer for lime-wash a mixture of lime and salt to a mixture of lime and tallow. Projecting cornices should either be flashed with lead on the top, or if this is too expensive, thoroughly saturated with a weak solution of resin.

I have recently been experimenting on a very interesting solution which has never been tried before as a preservative : silicon ether. It is a compound which can be dissolved in alcohol, and on exposure to air and moisture it is decomposed and deposits thin layers of hydrated silica, cementing the particles of stone together. The experiments I am making with this new material on rotten sandstone surfaces look very hopeful, and I

ought to be able to come to a definite conclusion soon as to its value. Experiments on rotten limestones have not turned out so successfully, mainly owing to the difficulty in penetration. I shall make a point of letting architects know how this new substance stands the weather through the columns of the R.I.B.A. JOURNAL, and if it survives the tests under the difficult conditions at Elgin and Tintern Abbey, I shall be glad to send small quantities to architects who would like to try it.

I fear I have rather uttered words of warning than given a solution of this most difficult problem, but little has been done in the way of systematic experiments in the past, and the chemist to-day is on his guard against making the mistakes of the chemist in the past, and assuming from successful laboratory experiments that he is going to get equally good results outside. The whole situation is gradually clearing, a great deal of rubbish has been removed, and I have no doubt that the time is approaching when the chemist will be able to tell the architect exactly what he can and cannot do, and the architect will frame his policy accordingly.

Correspondence

R.I.B.A. CODE OF PROFESSIONAL CONDUCT AND PRACTICE.

Guildhall, E.C.2.
24 January 1923.

To the Editor, JOURNAL R.I.B.A.—

SIR,—As questions have been asked with reference to the omission of the Code from the *Kalendar*, your readers might like to know the facts. It has been assumed that the Code printed in the *Kalendar* for 1920–21 was omitted from the present *Kalendar* by order of the present Council. That is not so; it was omitted by order of the late Council.

When the draft of the Code was submitted to the Practice Standing Committee in 1920, it passed resolutions on 7 April and 28 April that “the publication of any such document would not be in the interests of the Institute” and “they fear it would be liable to be made use of adversely to Architects in Courts of Law,” but the Council of that date did not accept the advice of the Committee.

In October of last year the Practice Standing Committee submitted a resolution to the Council as follows :

“The Committee note with satisfaction the decision of the Council not to publish the existing Code in the *Kalendar* for the coming year. It is the opinion of the Committee that the Code of Professional Conduct and Practice as at present published should not again be printed in the *Kalendar*. Further, the Council are recommended to rescind the present Code as an official document of the R.I.B.A.”

The Council accepted the advice and resolved accordingly.

At the present moment the Practice Standing Com-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

mittee is considering whether a Code should be printed in the *Kalendar*, and, if so, what that Code should be.

It is interesting to note that as far back as 1916 the Practice Standing Committee resolved that the previous Code should be omitted from the *Kalendar*; the resolution was as follows :—

"The Committee are of opinion that, with a view to strengthening the power of the Council to deal with all matters of Professional Conduct, it would be advisable to omit the contents of page 70 of the *Kalendar* from all future publications."

Yours faithfully, SYDNEY PERKS [F.]

CHARTER : COUNCIL : OR ELECTION : WHICH ?

To the Editor, JOURNAL R.I.B.A.—

SIR,—The present Council has proved by its own official action that a "Resolution of the Royal Institute" is superior in authority to the unauthorised proposals of a very small group of members.

The Charter with its safeguards therefore governs both the acts and the policy of the Council. It protects the Institute against any attempt by a Council or a Committee to wreck its provisions. Members can, if they will, defend their rights, in spite of election successes, in a Corporate Body which is not a political "machine." A Council is elected not for political, but for business purposes. It has to manage affairs ; and it cannot over-ride either the Bye-laws, which govern its powers, or the Charter, by which both the Council and the Bye-Laws are made. The Council has no authority but by "Resolution of the Royal Institute," and such a resolution it must obey whatever it thinks an election may command.

The present Council has refused to act on a "Resolution of the Royal Institute" on the false assumption that a Council election, wrongly based on a question of policy, relieves it from the responsibility of obedience to such a Resolution. It cannot plead any such excuse for so great a dereliction of duty.

The Resolution of March 1920 still stands, and is operative, for the attempt to reverse it in February 1922 failed. The Unification and Registration Committee set up as a result of the 1920 Resolution, is consequently still in existence, in spite of the present Council's attempt to "dissolve" it in July last. That this is so both official correspondence and the late lamented Registration Bill prove clearly. For the information of those who may not realise this let me briefly quote some official documents.

On 25 July 1922, I was informed :—"This Committee was appointed by the Council and those of its members who represented other bodies were nominated by those bodies at the request of the Council, and were duly appointed by the Council." On 5 July 1922 the present Council resolved, notwithstanding the "unanimous" "Resolution of the Royal Institute" of March 1920, that the Unification and Registration Committee

"should be dissolved" and, "that each member" should have "his appointment cancelled." But in April 1920 the various Societies were invited by the Council to appoint, themselves, their own representatives. This they did. In my own case on 29 April 1920 I was invited by the Council, acting as an accredited agent, to join the Committee "subject to the subsequent confirmation of the appointment by the Allied Societies concerned" in Australia. On 28 June 1920 I was informed, officially, that "the Unification Committee has now been completed by the appointment of representatives by the various Bodies concerned, and by the election of representatives by the Licentiates of the Royal Institute and by the unattached Architects." On 26 July 1921 further information from the Unification Committee was available. It indicated that four resolutions had been "passed" by the Unification Committee, which, as I have shown, and will further show, was not a Committee of the R.I.B.A. Those resolutions decided "that the principle of Scheme A," and not any scheme at all, was adopted. And "that the matter be referred to the Sub-Committee to consider details and report to the Main Committee."

This information also indicated that the R.I.B.A. Council "approved" these resolutions and proceeded to deal with the business involved. And, as the third resolution recommended the R.I.B.A. Council to revise its Charter and Bye-Laws, time for negotiation was required. But—and note how that Council respected the Charter!—when this "Preliminary work" was done "the Council of the R.I.B.A." would be "in a position to submit to the General Body a complete scheme" and "when this scheme has been adopted by the General Bodies of the R.I.B.A. and the Society of Architects, a meeting of the Unification Sub-Committee will then be called to carry on the work."

The members who form the majority of the present Council "cancelled" the appointment of members of a Committee whom they did not appoint, and, in their late Bill, they admitted they had no power, and no right, to cancel any such appointments ; for the Bill they approved, and disapproved within a week, as well as the Bill they approved and the General Body disapproved at once, both agreed on this one point, if on no others. Both Bills admitted the principle, and nobody could, or would, deny the wisdom, the inalienable right, of the proviso, that all members appointed to a Board, a Tribunal, or a Committee, by Bodies other than the R.I.B.A., should be removed, or replaced, only by the Body appointing them, and by no other.

The Unification Committee can therefore presumably carry on its work. And it is to be hoped that the R.I.B.A. Council will co-operate by reappointing its own representatives and that the President will again be free to preside over the deliberations of a Committee "representing the whole profession."—Yours truly,

HUBERT C. CORLETTE [F.]

REGISTRATION OF ARCHITECTS

Registration of Architects

DISCUSSION ON DRAFT BILL.

A Special General Meeting was held on Monday, 29 January 1923, at 5 p.m., for the purpose of considering the Draft Bill for the Registration of Architects, which had been prepared by the Registration Committee and approved by the Council, Mr. A. W. S. Cross, Vice-President, in the chair.

The CHAIRMAN : My first duty is to call upon the Secretary to read the notice convening the meeting, which was published in the JOURNAL of 13 January last, and the notice which was afterwards sent out on 22 January.

The SECRETARY read the notices.

The CHAIRMAN : I have to remind any Licentiates present that, under the provisions of the Charter of 1909, they are entitled to take part in the discussion, but not to vote.

Mr. KEEN : I have a letter from the President, who asked me to read it to the meeting :

GENTLEMEN.—In expressing regret for my absence from Monday's meeting, I should explain that this is due in the first instance to an important business engagement in the North, which was made long before the date of the Institute meeting was fixed. My first wish to attempt to cancel this engagement was set aside on remembering that it has been the practice, where any special business has been particularly in the hands of one of the Vice-Presidents, that that gentleman should be in control of the meeting that deals with it.

There is one piece of information which I ought to give to the meeting. The Council some weeks ago asked me to see Lord Crawford on the subject of the possibility of his introducing the Bill, if passed by the General Body, into the House of Lords. An interview at the moment being impossible to his Lordship, I corresponded with him and received a very courteous reply, relative to the advantages of introducing a measure of this kind in the House of Commons rather than the House of Lords, on the grounds chiefly of delay.

Lord Crawford, besides writing this letter, was good enough to give me an interview, and in it expressed a hint that it would be very unwise for the Institute to introduce a Bill into either House for which it was not sure of having the fairly unanimous support of its own members, and at least a reasonable assurance of support from other Societies representing architecture ; otherwise the Bill might be defeated in Parliament, which in his opinion would be unfortunate. I owe it to Lord Crawford's very sincere interest in the Institute to make this practical suggestion of his known to our members.

I feel that I need not accuse myself of taking sides in the present discussion if I add to these remarks my own hope that, whether the Bill is passed by the General Body or not, the fullest precautions may be taken on the lines which Lord Crawford suggests before the Bill is allowed to begin its Parliamentary course towards success or towards a failure which might hurt our prestige.

PAUL WATERHOUSE,
President.

The SECRETARY read the following letters from Mr. J. A. Gotch and Mr. Charles B. Flockton.

DEAR MACALISTER,—Absence from England will, unfortunately, prevent my attending the General Meeting at which the Draft Registration Bill will be considered. May I, therefore, be allowed briefly to support the proposal that before any Registration Bill is submitted to Parliament a further endeavour should be made to achieve what is called the Unification of the profession.

It needs no argument to establish the proposition that could

an agreed scheme of Unification be carried, the chances of obtaining Registration would be much greater than they are now, when it is difficult for action to be taken by one body without offending the susceptibilities of others, or coming into conflict with their interests.

In connection with this point it should be borne in mind that the Allied Societies both at home and in the Dominions have now made it clear that they are unanimous in the view that Unification should precede Registration, and although the result of the last Council election gives colour to the assumption that the Institute as a whole does not share that view, yet, now that this opinion has been so definitely and widely expressed, would it not be wise to pay attention to it in the interests of the movement we all support ?

I venture to suggest that a basis for Unification might be found in adopting the qualifications laid down as necessary for Registration in the Draft Bill itself.

Without Unification, which implies the recognition of the Institute as the governing body of the profession, and also implies the inclusion within its ranks of those who are considered worthy of being registered, Registration would be an actual menace to the Institute, for the great bulk of architects would be content to be known simply as registered architects, and would not trouble themselves to seek the distinction of belonging to the Institute.

To press the present Bill under present conditions is to run the grave risk of its being thrown out ; and if thrown out, the future prospects of obtaining Registration would be seriously prejudiced.—Yours faithfully,

J. A. GOTCH.

DEAR MR. MACALISTER,—I very greatly regret that it will be quite impossible for me to attend the meeting on the 29th.

I trust that my absence will not be construed as an indication that I am not in favour of the Bill or that I am in any way in disagreement with the other members of the Registration Sub-Committee or of the main Committee.—Yours truly,

CHAS. B. FLOCKTON.

There is also a letter from Professor C. H. Reilly, of Liverpool, which deals entirely with one of the later clauses in the Bill ; therefore perhaps it will be more convenient if it is read when we reach that point ?

The CHAIRMAN : Yes. Notices of motion or amendment have been received from the following :

Mr. G. A. T. Middleton [A.], Major H. C. Corlette [F.], Professor A. Beresford Pite [F.], Mr. H. M. de Colleville [A.], Mr. Charles A. Daubney [F.], Mr. Charles McLachlan [A.], Mr. Bernard Dicksee [F.], Messrs. Arthur Crow [F.] and Baxter Greig [A.] (representing the District Surveyors' Association).

Mr. Perks will take charge of the Bill this evening, and he will move its adoption, subject to any amendments which may be carried.

All matters relative to procedure during the course of this afternoon's debate will be declared carried, if passed by the usual majority ; but as regards the Bill itself, including its clauses, and the deliberation on its different parts, clause by clause, in each case a two-thirds majority will be required. I think it better to give this ruling in advance, because it prevents disappointment and heart-burning at the end of the meeting.

I call upon Mr. Perks to propose the adoption of the Bill, which, at the present stage, as you know, is simply a Council measure, but which, if carried this evening, will be the Institute measure.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Mr. SYDNEY PERKS [F.] : I propose, with your permission, to move that we adopt the Bill generally, subject to the consideration of the clauses. Last February there was a debate, which had generally to do with unification, and the resolution submitted was not carried by a two-thirds majority. During that debate I, and some others, mentioned that if a Bill were promoted, it might include clauses providing for all architects to become members of this Institute. You will remember our Unification Committee wanted to admit "all the architects" before we did anything else; that idea was defeated, as you know, at the last election. When we came to consider, in Committee, the form of a Bill, we went through all the Bills we could get hold of, and we were, naturally, very anxious to promote a Bill which would give satisfaction generally, and which would raise as little opposition as possible. We were guided, to a certain extent, by the Unification Sub-Committee, which recommended the Dentists Act as a model. We considered it with other Acts, and we have drafted a Bill—it is the one you have—which we hope will give very little offence to anybody. We do not provide in that Bill for any man on the Register becoming a member of this Institute. In that, we follow what has been done before. I was of opinion that no Registration Bill had ever been promoted which provided for the members of a certain profession becoming members of the leading Society in that profession, but I wanted corroboration, and to-day I have received a letter from Messrs. Sherwood, the Parliamentary Agents, in which they say: "In reply to your letter, we think you may safely state that no Registration Act has been passed whereby all the members of the profession became members of the particular Society of that profession. It certainly is not so as regards the medical, legal and dental professions." Therefore in proposing to set up an independent Register we are following precedent, and are not interfering with the status of this or any other Society. When we discussed the clauses, one of the first things we did was to ask Mr. Sadgrove, representing the Society of Architects, to see us. We had a very friendly afternoon, and we told him what we proposed. That was, I think, in July or August. We discussed the whole thing. I think the Society of Architects has written a letter saying they are not prepared to support our Bill; they do not say they object to it, but whatever their difficulties are, I hope we shall be able to meet them. There is one thing I want to impress upon you. It has often been said that if we have any opposition to our Bill, it cannot go through Parliament. That statement is absolutely unfounded on fact. It is absolutely contrary to the history of registration of other bodies. Take the last Bill that passed—the Dentists'. There was considerable opposition among the dentists to registration, but their Registration Act was passed. The nurses wanted registration, and there was simply enormous opposition to their getting it; but they did get it. And there was the case of the veterinary surgeons before that. I was talking to the Secretary to-day. He said there had been great opposition to veterinary surgeons getting registration. It took them 21 years, but they got it. So I want you to understand this: that, according to the history of these things, a Bill can succeed when it is opposed. This is a fact we must accept.

At a later stage we sent round a draft of the Bill to all the Allied Societies. We received replies and suggestions from the Allied Societies, and I think we may say that those suggestions have been embodied in the Bill; I cannot think of anything important which has not been embodied. We tabulated their suggestions and took an average of what they wanted. The Allied Societies and their Presidents, of course, want the old unification scheme; they want their men to get into this Institute by another way than by its examinations. My sympathies are very much with the Presidents as representatives of the Allied Societies for this reason: that they represent a body of men principally composed of gentlemen who do not belong to this Institute. Let me give you the official figures. They were calculated a little while ago by Mr. MacAlister, and give the numbers in

London and the numbers outside London. The total number in Allied Societies in Great Britain is 1,944. How many are members of this Institute? 716. There has been no opposition to the Bill except from our old unification friends. Suppose we had sat down and seen everybody, and said "We are going to promote a Bill; will you tell us what you want? We should like to agree with you, and with you, and with you," then the work might go on for ages. And it has been going on for ages. We have received letters from the Union of Architects' Assistants; they have sent in proposals; they want certain things. The Institution of Mechanical Engineers want certain things. That is the usual procedure in the case of Bills; you promote a Bill, and people say "I object to so and so." Then you have a Committee and meet them. If you cannot agree, you fight it out in the Committee Rooms of the House at Westminster. That is what I think we ought to do, to get at grips with this thing. We must find out where we stand, and the only way to do that is to go on with the Bill, see what opposition we shall get, and where it is coming from, and how we can meet it. The great opposition to the registration of architects is not coming from architects, but from the general public, and that is where we shall have the trouble. It may be that a lot of men will object in Parliament, saying "This is Trade Unionism and we will not have Trade Unionism," and other people may say "Why should architects have registration?" They may say "Architecture is an art, and no art can be registered; the world can go on just as well if architects never get registration." Let the opposition come, and then let us meet it and discuss these things and try to settle them. If we cannot settle them, we must fight them out at Westminster. Does any man here suppose we should get this Bill through at once? As I have said, the veterinary surgeons were 21 years; they started in 1860, and they succeeded in 1881. And they did not quarrel among themselves. I really think we should go ahead. We have never promoted a Bill, never gone as far as this with a Bill, and we ought to go on. If we are beaten, we shall know exactly where we are and what the opposition is.

Mr. C. H. HEATHCOTE [F.] , Vice-President : I have great pleasure in formally seconding the motion.

The CHAIRMAN : We have had several amendments put before us. The one from Mr. Middleton came first, and I will ask you, Mr. Dawber, to defer yours.

Mr. G. A. T. MIDDLETON [A.] : I consider myself to be something near being the father of the Registration movement, and consequently I am in favour of Registration, and I agree very largely indeed with what the mover of this motion has put before us. But I have been forty years on this, working steadily for Registration; and if it means a delay of one more year only to get a really good Bill, I should prefer to wait. It seems to me there are certain serious defects in this measure, defects which call for further detailed consideration, which the Committee will be better able to give after they have seen and thought out the various amendments which they have received this evening, and after the discussion which is to take place now. The major defects, as I consider them, I shall lay before you as best I can. I have some knowledge of Architects' Registration Bills. I myself produced the first rough draft, about the year 1886. I was on the Committee which had to deal with the Bill which reached the Second Reading in 1886; it was proposed by this Institute. I was upon the subsequently greatly improved Bill of 1889, and upon the subsequent Bills slowly hammered out from that time onwards for over twenty years. We met people again and again, exactly in the way in which Mr. Perks now suggests, and by giving way here, and sustaining our position there, we gradually got what was a fairly satisfactory measure. There have been two Boards set up by this Bill, a Board and a Tribunal, besides the Institute. The Tribunal, as given here, is practically a Committee of the Board. I can see no reason for two bodies; it is only multiplying difficulties and machinery. One body could do the whole work by itself

REGISTRATION OF ARCHITECTS

and by committees. I think there is nobody on the Tribunal who is not on the Board. That is the first defect. Also the Board particularly is over-large. Forty-seven is a very large body, and it is a difficult number to gather together to work for the administration of an Act of Parliament—not for the carrying on of the administration of this Institute ; simply to administer an Act. You only need a comparatively small body of, as it were, directors of a company to administer and work the Act steadily. The Board is over-dominated by this Institute in that 25 of the 47 are, directly or indirectly, nominated by the Institute. I admit that the Institute should have a considerable voice, but on this Board the members can be turned out at the will of the Council ; they are annually elected. The Institute Council is also subject to annual election, and sometimes there is almost entirely a new Council. A Board to administer an Act requires a much more settled policy than that : it requires to go on steadily year after year, with very little change of personnel. A five years' tenure of office would be none too long for such a Board as is contemplated, a comparatively small and well-chosen Board.

Mr. A. O. COLLARD [F.] : May I rise to a point of order ? What is the precise amendment before the meeting ?

The CHAIRMAN : I shall read it. "That the Draft Registration Bill be referred back to the Council for both general and detailed reconsideration before being again submitted to a general meeting."

Mr. MIDDLETON : The Board is only consultative. The domination comes from the Council of this Institute ; it is not a nice position in which to place a representative of the Crown. It is the Crown we have to think of as represented there. All the work comes mainly on your Council, mainly on practising architects, just the men who already are fully burdened with the management of the affairs of this Institute. In many cases you cut out the retired men by insisting on practising architects ; yet the retired men have most time, and in most cases have had most experience of Board work. The point is that the Board, however small a one, preferably should be a paid Board, because there will be much work for it to do. Then another important thing. For the person registered under this Act there is only the name of architect, the words "architectural" and "architecture," not the practice, not the full thing. It begins with a sham Board, which can be overruled by the Council, and ends with sham registration. It is easy to put these things right. The Bill, as it stands, would kill the Society and the Institute.

The CHAIRMAN : Is there a seconder ?

Mr. BERNARD DICKSEE [F.] : As my motion is practically the same as Mr. Middleton's, although I look upon the matter from a different standpoint, I think I can second it. Mr. Middleton attacked it from the standpoint of administration ; I attack it from the point of view of the details of the measure itself. In the first instance, no single member of this Institute, or anybody else, is entitled absolutely to registration under this Bill, and that, to my mind, is a very serious defect. I have been a Fellow of this Institute for I do not know how many years, and I am entitled to be registered if I like ; but nobody, under this Bill, has the power to register me. I am a District Surveyor. Nearly 30 years ago I agreed to give up my practice on taking office as a District Surveyor, and, as I am not an architect in practice, I should be ruled out by the first clause. That clause, dealing with people who have a right to be admitted, is very badly conceived, and the fact that the Bill as published in the JOURNAL is different from what it is now, after it has been submitted to the Parliamentary Agents, shows that the Bill has been very carelessly considered and drawn up. Nearly all through this Bill you will see that the authority who registers has the right to refuse any such application as mine. There is no right for one of us to register, and that is the most glaring defect in this Bill. There is a large number of items of the

same character. I shall be, and always have been, opposed to Registration, because I think it is a mad scheme ; it cannot possibly give any material advantage to the Institute ; it will not prevent anybody carrying on the same work still, under another name. I second the motion of Mr. Middleton.

Professor BERESFORD PITE [F.] : May I support Mr. Middleton ? I have no desire to prolong the discussion, but I congratulate Mr. Perks on the skill with which he skated over very thin ice, and on his endeavour to steer between very prominent rocks. I think the real point is that in this matter, whatever may be said about the difficulties of unification, it is absurd, if not completely and morally wrong, for a proposal of this sort, which covers everybody who carries the name "architect" and who practises the art of architecture, to be put forward without securing that large unanimity of support which Lord Crawford mentioned in his letter. If the Council can assure us that the Allied Societies, which are an integral part of this Institute, support this Bill ; if the Council can assure us that the Architectural Societies with whom they have been in conference can support it, and if they are assured that it carries with it that unanimity which is necessary, we can go forward. Otherwise I think there is nothing for this meeting to do but to support Mr. Middleton's proposal, that the Bill goes back to the Council until that unanimity has been arrived at. I do not propose to deal with the Bill ; in my opinion, it neither succeeds satisfactorily in registering those who ought to be registered nor defines those qualifications satisfactorily which we feel to be necessary. There are very grave blemishes in it. One is the real difficulty I have, as a layman, in understanding the *modus operandi* of the Bill. Mr. Middleton has touched upon those points, and I need not enlarge upon them. I urge this meeting to accept Mr. Middleton's amendment by the two-thirds majority, to affirm that this Bill must go back to the Council until they have secured the consent of the Allied Societies, the consent of the other Societies which are not allied, and an assurance, or a sufficient conviction, that they are carrying with them the opinion of those architects who are not even members of any one of the Societies.

Mr. GILLBEE SCOTT [F.] : Mr. Middleton's chief objection seems to be that we have here a Board and a Tribunal ; he also seems to object very much to the number on the Board. I think that, in order to get this Bill through, it is necessary to disarm hostility. It is for this reason that these persons should be nominated by the Privy Council, the Board of Trade, and so on ; and it is necessary also that all other professional Societies should be properly and fully represented on the Board. It is only a matter of detail if the numbers are to be cut down. But, in spite of what Mr. Middleton said about the Institute being predominant, it is exactly what we want. Who should predominate in a Registration Act but the Institute ? It represents practically, as regards numbers, not only the great majority of the architects of Great Britain, but of those in the British Empire ; we have members all over the Empire, and we have made a very great effort to see that the Institute does get a strong representation upon the Board. The Memorandum which is to come in front of this Bill, in the last two or three lines, defines the purpose of the Board : "The Board will determine the standard of examinations, and the Tribunal will determine who, subject to the provisions of the Bill, are proper persons to be enrolled in the Register." If the Council were to attempt to determine that, the public might say : "You are making it too close." The Tribunal is nominated for a special purpose : to decide, until the Act gets into full force and working order—that is, four years—who are to go upon the Register. After four years the Tribunal will cease to exist. Then Mr. Middleton made a remark about the Board and the nomination of it. Each person has his own nominations, and the Board cannot turn out other members of the Board, but the Privy Council can each year nominate its own member, or renominate its own member ; and the same with the University and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Institute members. With regard to unanimity, the only unanimity we can expect at this moment, or that we can act upon, is the extraordinary unanimity which was shown at the last Election. The whole thing was candidly put before all the members of the Institute. There was a dead line of cleavage ; members were asked to approve of this principle or that, and what they did approve of was the principle we are considering now. It was the desire of those who sent us here to get on with the Bill, and we have got on with it, and that is the reason we are meeting you to-night. What is the use of letting the thing drift ? It is not that we do not wish to carry everybody with us ; we have consulted, to a certain extent, Allied Societies ; we wish to consult them and to hear all that they have to say, and all that the Society of Architects has to say ; and if further improvements can be introduced into the Bill, there need be no fear that they will be ruled out. There will be plenty of time to alter anything. Our sole object is to get the best Bill we can ; and if anybody can suggest any further improvement in detail, we shall be delighted to accept it. With regard to Mr. Dicksee's remark, he is the last person we would wish to see left out, or other men in his position.

Mr. DICKSEE : Architectural Professors are left out too.

A MEMBER : On a point of order ; if we vote on this amendment and it is carried, does it rule out Mr. Guy Dawber's ?

The CHAIRMAN : The proper procedure is this : if Mr. Middleton's amendment is passed, it must he put as a substantive motion, and then Mr. Dawber can move his amendment on that. That is the procedure we shall adopt.

Mr. H. A. WELCH [A.] : If Mr. Middleton's amendment is defeated, Mr. Dawber's will follow as a matter of course ? Before a vote is taken on this, may I ask one or two questions ? I ask whether or not the Council has received the views upon this Bill of Parliamentary Agents or Parliamentary solicitors ?

The CHAIRMAN : Yes.

Mr. WELCH : And you discussed it as a Council ?

The CHAIRMAN : To the best of my belief, yes.

Mr. WELCH : I put it to you that is not a fact. Whether we vote for this amendment or against it, we want to be clear as to what we are voting for : and if a report has been received on this measure, has the Council considered it ?

The CHAIRMAN : I say it is not a fact that the Council has not considered the Registration Committee's report.

Mr. WELCH : But this is the Council's report, and it affects the Council whether Parliamentary Agents' opinion has been received. I submit the Council has never received that report. As one of the members who will vote on this amendment, I ask the nature of that report.

Mr. PERKS : The Parliamentary Agents made no report ; they drew up the Bill.

Mr. DICKSEE : As it appeared in the JOURNAL ; that was before the Parliamentary Agents saw it, and they had only a few days.

Major H. C. CORLETT [F.] : We had a Bill sent to us the other day, in the JOURNAL, and it was approved by the Council. The question just asked is answered by the second Bill, which was approved by the Parliamentary Agents ; that is, the first Bill was disapproved by them.

The CHAIRMAN : Not on any question of principle : they suggested some improvements in detail.

Major CORLETT : If that Bill is approved by the Council, I should like to say something on Mr. Middleton's amendment. I do not think this Bill should be referred back to the Council ; in my view it is very much a question whether the Council has any power at all to bring this Bill before the meeting. The question in my mind is whether the Charter or the election of Council governs this Institute. Under the Charter, so far as I understand it, a resolution by the Royal Institute is binding on the Council. Can you show me, from the Charter or the Bye-laws, that it is not ?

Mr. PERKS : Can you show me that it is ?

Major CORLETT : I refer Mr. Perks to the Charter, in which it says that a resolution carried at a special general meeting is a resolution of the Royal Institute, and it is a stronger thing, and a much more governing thing, than a resolution of the Council. Another point, with regard to election. Some members are under the impression that an election of Council has something to do with the policy of the Institute. I submit that the policy of the Institute is decided by a special general meeting at which that policy is considered. In 1920 the proposals as to policy were clearly put before it, and the question of policy submitted then was carried. The policy then agreed to was opposed by a certain number of members, and last February they brought in a proposal that it should be reversed. Their proposal was defeated, and therefore I submit that the policy decided in 1920 is the policy now before this Institute, and not the policy represented by the Registration Bill. I submit that the Council at the present time is running riot through the Charter. I suggest that Mr. Perks, when he quotes official figures, should quote them correctly. I also have a copy of the official figures, and that copy of the official figures, quoted officially by Mr. Perks, states that there are in London 414 Fellows, in the Provinces 430 ; Associates in London 723, in the Provinces 1,162. I do not want to misquote Mr. Perks, but I understand him to say there were about 700 members of the Institute in the Provinces.*

Mr. PERKS : On a point of order, you know you are drawing a red herring across the path ; you know you are wrong.

Major CORLETT : It is of the utmost importance that this question should not be referred to the Council again. I speak now not as a representative of Australia, but as an ordinary member of this Institute. I could, if I had time, say something on the subject of registration in Australia, where they have recently passed one Act. They passed another one earlier, and there is still another in the form of a Bill, which has not yet come before the Legislative Assembly. The principles involved in this Act are quite important. One member criticised the Board constitution. They are satisfied with a Board of eight. But the important thing in that Act is this : that it places the whole profession under a State Department, the members of the Board are paid by the State, and the Governor in Council can if desired decide practically the whole business of the Registration Scheme.

Major HARRY BARNES [F.] : On a point of order that has been raised, as to whether, in the event of this amendment being negated, the amendment of Mr. Dawber can then be put, I think there are a great number of us who want to speak on this matter, but would prefer to speak on Mr. Dawber's amendment rather than on this. But I would draw your attention to the fact that this amendment is, that the draft Registration Bill be referred back to the Council for both general and detailed reconsideration. Are not these words " both general and detailed reconsideration " so wide that they will rule out Mr. Dawber's amendment, and in that case bring the whole discussion to an end ? We want to safeguard against that. Can we have your assurance that, in the event of Mr. Middleton's amendment being lost, Mr. Dawber's amendment will be presented to us, and a discussion allowed to take place upon it ?

The CHAIRMAN : Yes, certainly.

* The official figures quoted by me are correct. Total Members : London 1,137, Provinces 1,592. Of these last 867 are members of Allied Societies and 723, apparently, are not.

The Licentiates, though not corporate members, deserve a little thought. There are, in London 382, in the Provinces 926 ; of the latter 338 are members of Allied Societies. A further consideration is this : Total Corporate Members, London 1,137, non-London 2,021 ; Licentiates, London 382, non-London 1,074—including Overseas. Grand total 4,614. Quoted from official figures December 1922.—H. C. C.

REGISTRATION OF ARCHITECTS

Mr. PERCY THOMAS [F.] (President of the South Wales Institute of Architects) : I want to know, and I think the whole of us would like a direct answer to the question, whether Messrs. Sherwood gave an opinion on the chances of this Bill becoming law, and whether we may have that opinion.

Mr. W. W. SCOTT-MONCRIEFF [F.] : I speak against Mr. Middleton's amendment, and I would remind everybody here that if that amendment is passed there will be great danger of the whole question of unification before registration being revived. If this Council has done nothing else, it has proved to the Institute that there is great doubt whether we shall get the Bill through or not, and therefore it is more than ever dangerous that we should go in for unification before we know if we shall get registration. If Mr. Middleton's amendment, or any other amendment, is passed, we must understand that we are dangerously near the line of the old question of unification before registration.

The CHAIRMAN : I shall take your vote on Mr. Middleton's amendment.

There voted in favour, 14.

The CHAIRMAN : The amendment is lost.

Mr. E. GUY DAWBER [F.] : Mr. Chairman, I do not want to go into detail over this Bill, but to speak of its broader principles. We have had a great deal of criticism on certain points in it, which I consider, at this stage, are only a waste of time. I should therefore like to propose the following amendment :

"That this Bill be not considered until the other Professional Societies and interests affected have been consulted and a general consensus of professional opinion obtained in favour of the Bill."

I am in favour of registration, but only if it is with the full support of the profession. The proposals now put forward, as I understand them, only represent the Council of the Institute ; and, as far as I am aware, no really serious attempt has been made to obtain the support of the Allied Societies and that of other interested bodies, and of those two thousand architects at least who do not belong to the Institute but are members of various societies. You will remember, Sir, that on the 7th of February last year you yourself proposed a resolution in this room, "That this meeting is of opinion that the conditions for the unification of the profession should form part of a Registration Bill." Mr. Cross and his friends are now in a position to put forward a Registration Bill, but no attempt has been made to unify the profession, though I think it was quite clear from his resolution that he was aware that any Bill of this sort would be still-born. We in this room all know that without unification no Bill has a chance of passing into Law. Why, therefore, should we waste time and money over this Bill, when we see, by the discussion we have already had, that we are so very far from agreement ? I understand that communications from the Society of Architects and from the Union of Professional Assistants have been received, stating that they are unable to support the Bill, and our members, I think, should know this, and exactly what those letters contain. The letter from the Union of Assistants has been published, but I should like to hear what the opinion was from the Society of Architects. In face of these expressions of opinion, not to mention that of the Allied Societies of Bristol, and, I think, Manchester, Norwich, and others, how can the Council persist in their contention that this Bill is a serious effort towards the desired object ? I should like to ask if the Surveyors' Institution and the Institution of Civil Engineers have been consulted, and if so, what their opinion is. And I should like to repeat what Mr. Welch said, and ask if we may have the opinion of the Council's legal advisers as to the possibility of this Bill going through Parliament. Until we have absolute unity in our ranks, I think it is mere waste of time to proceed with a discussion of this Bill. I therefore beg to move the amendment that I have already read out.

Mr. JOSIAH GUNTON [F.] : I rise to second the motion.

I have been in practice forty years, and I have heard and thought of these schemes up till the present day, and I see no reason why we should have registration, or anything else ; but as the general feeling seems to be that we should have registration, I support Mr. Dawber's amendment. I do not think it would be of the faintest use for the Institute to proceed with this Bill on the present lines. I am perforce in favour of registration, but certainly not until there is certain unification as well. In the House, Counsel on both sides fight the matter in a Bill, and until we are unanimous we shall not get it. We are riding for a fall. There are certain things behind this that we do not know and we want to know. What is the solicitors' and the agents' advice ? We have heard nothing but a bald statement and no details. It would be much better to refer this matter back, at any rate until practical unanimity is obtained. I only second registration in view of the feeling there is, not that I favour anything at all—I am happy as we are ; but I would not wish to go on with the Bill as it now stands.

Mr. HERBERT T. BUCKLAND [F.] : I think everyone ought to know that this Registration Bill has been discussed by the Allied Societies, and as I acted as Chairman of the Conference of Allied Societies' Presidents, which is held here four times a year, I may speak with some knowledge of the general opinion among Presidents of Allied Societies with regard to this Bill. When the Bill was sent to the Allied Societies for consideration, they all loyally considered it as a Bill, and they sent recommendations, which our Chairman assures us have been embodied in the Bill ; but he did not say that they sent very strong recommendations to the effect that some measure of unification should precede any efforts with regard to the promotion of a Registration Bill in Parliament. It seems to me that it is only common sense to remove any obstacle before attempting to put the measure before Parliament. We have been told about the difficulties in the promotion of the Bills for Dentists, Veterinary Surgeons and Nurses, and that it is vital that the community should be protected and have skilled advice. And yet we architects, who cannot make the same claim, put forward a Bill without having first agreed to it among ourselves. I urge that the Council should consider whether it is not in the best interests of architects that they should attempt to get some sort of general support for their Bill before putting it forward. I support Mr. Welch and Mr. Thomas in asking for a straight reply to the very important question they asked : what are the prospects of this Bill going through ? Have the Parliamentary agents given any opinion on that point ? If the Chairman will give us that, I am sure we shall be very much happier.

A MEMBER : Can we have an answer to that at once ?

The CHAIRMAN : When we first approached the Parliamentary Committee they expressed the opinion which we told the profession at once, that there was very little chance of their getting a Bill through Parliament.

Mr. FRANCIS JONES [F.] (President of the Manchester Society of Architects) : I am bowed down with grief, as a member of one of the Allied Societies, to hear my friend and colleague on the Council, Mr. Perks, refer to the Allied Societies in slighting terms.

Mr. PERKS : I have never done that in my life.

Mr. FRANCIS JONES : Whether Mr. Perks's actual figures are correct I am not quite sure, but I have roughly added up the official figures, of which Mr. Perks also has had a copy, and I can only say that I do not get the same total as Mr. Perks does. I, personally, feel that I would rather have no registration at all than not have unanimity in the profession as a body. I appeal to everybody to support that view. We must be united in our own ranks, and if we are, then whether we get registration or not, we shall carry on to good effect. I take it that the object of registration is the betterment of the profession, the better education of the architectural student, and united efforts for better architecture in this country. I do not see that these results can possibly be obtained if we are divided amongst our-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

selves. I appeal to everybody to support Mr. Dawber's amendment, and I hope that everybody will consider not themselves, but the future of the profession, and the good of the country.

Mr. E. P. WARREN [F.] (President of the Berks, Bucks and Oxon Architectural Association) : I strongly support Mr. Dawber's amendment, but in doing so I would like to ask Mr. Perks a question. Mr. Perks spoke of the Allied Societies as wishing for the "old unification." May I ask what that is? We are waiting for a scheme, which was summarily dismissed almost as the first act of the new Council. There is no unification scheme which has been made public. My Allied Society—and I think I can speak for other Allied Societies—have no hostility to registration, but they think unification is the necessary corollary; that you cannot have one without the other; that you must first bring all Architectural Societies, Allied and others, into line upon this scheme before proceeding with a Bill. The first item in the Allied Societies scheme was a motion of reference to unification, and they had an indication that there was a pledge, that the terms of unification should be embodied in a Registration Bill. They expected such terms would be included, and they considered that that pledge was broken. They considered also that it was a great pity, and a contemptuous act on the part of the Council, to dismiss a Committee which the Institute had constituted and recognised, and on which many of their members were serving, without giving them an opportunity of making a report.

Major BARNES : We have a very clear issue to vote on now, and I hope we shall not confuse it. We are not asked to vote on the question as between unification and registration; that is not the motion which is before the meeting. What we are asked to vote on is simply this: whether we are going to make a further attempt to get some general concensus of opinion in the profession in favour of this Bill before we go on with it, or whether we are not. That is the simple question. It is not whether we are going in for unification or not, or whether we are in favour of registration. It is, are we going to try to unite the profession in favour of this Bill? Or are we going to proceed without making such an effort? I very much admired the dashing speech with which Mr. Perks introduced this Bill; he is prepared, evidently, to go on for 21 years, if necessary, to get it through. I should like, if possible, to shorten that period. I cannot understand why Mr. Perks, or anybody who wants this Bill, should be opposed to a little more time being taken before it is put to the House. Is it their opinion that the profession cannot be united on the Bill? If that is their opinion, that there is nothing that can be done or said which will unite the profession or produce a larger body of opinion in favour of the Bill, I do not think there is any question that they are justified in going on. But is that their position? I am sure it is not. "But," they say, "we shall have a better chance of uniting the profession if we go on at once than if we delay," and that, of course, is a very proper proposition to consider. All I will say with regard to that is this: that it was not my experience, brief as it was, that the chances of a Bill are improved after they get to the House if there is a substantial difference of opinion between large bodies in the profession. Mr. Perks brought some cases to help his argument. He spoke about the nurses who got their Bill, but Mr. Perks must know that that first Bill was hopelessly lost because the House resolved itself into a contest between two bodies in the nursing profession, and it was only after that Bill was lost, and after unity had been achieved outside, that they got a Bill through. With regard to the dentists, it was equally true that that Bill only got through because the Government took it up, because they had managed to get substantial unanimity in the dental world. What is the position with regard to this Bill? Mr. Perks himself tells us that we are going to get very considerable opposition from the public; what decision are we going to come to to meet that opposition if we show ourselves to be a divided profession? Mr. Perks's general position seems to be this: I don't know where the

batteries are, I don't know when they are going to open fire, but let us get out into the open, and then we shall find out. I think that line of argument might entitle Mr. Perks to be called the Rupert of debate; but what about the casualties? After all, this meeting testifies to what depth, and to what degree everybody present has got the interests first of all of the profession of architecture, and next of this Institute, at heart; and how will these suffer if we take rash and premature action? I can see a Bill of this sort coming before the House—I say nothing about the Bill itself, it would be outside the scope of this amendment to discuss that—I can see a Bill of this kind coming before the House of Commons, and I can see the opposition to it, which would be engineered in formidable quarters; and I can imagine any poor architect in the House endeavouring to support a Bill torn to rags by the opposition which could easily be brought against it. I think all these considerations do point to this: that the amendment which has been proposed by Mr. Guy Dawber is a very wise, temperate and judicious amendment. It does not ask this meeting to declare against Registration. What it does ask this meeting, and what it does ask the Council, is to make one more effort, to take a little more time, to try to get amongst our own people, the men who are practising the great profession of architecture, some substantial measure of unanimity and unification in support of a Registration Bill, and for that reason I have great pleasure in supporting the amendment.

The CHAIRMAN : Sir Aston Webb is here. He makes so few appearances now that I am sure you would like to hear him.

Sir ASTON WEBB, P.R.A. : I will not take up even the five minutes allotted to speakers. I should only like to say I most cordially support Mr. Guy Dawber's amendment. And I support it for this very simple reason: that it does seem to me to put the cart before the horse to say "Now pass this Bill, the draft which is going to the House, and when you have done that, discuss the issue." You must first discuss what is to be in the Bill before you can decide to send it to the House of Commons, and I hope that is what we shall do, and that is what I understand from Mr. Guy Dawber's amendment. I should have thought meetings of this Institute would have been held, more as friendly meetings, in which the general principles of the Bill would have been discussed, so that it could be found out whether architects in general were in favour of it. But to say "Send this Bill to the House of Commons, and we will talk about what is inside it afterwards," seems to me to be altogether wrong.

Mr. DELISSA JOSEPH [F.] : I should like you, before you give your vote, to try and recall dispassionately, the outline of the present situation, and the series of circumstances which have tended to bring us here. I can approach this subject without personal feeling; I am not one of the original members who favoured unification or registration. I studied the subject carefully before I allowed myself to be nominated for the Council. The purpose of this Bill should be clearly defined in our minds before we reject it or postpone its consideration. We should also study the history of the circumstances leading to its production. The story of the Unification and Registration Committee is already well known to most of you. That Committee produced what they do not regard as an interim report, but a clear statement of the policy they recommended for adoption, and I think I am right in quoting as the words of that recommendation, "That all architects should be admitted to the Institute as a preliminary step to the carrying through of unification." That recommendation of the Unification Committee was carried by the late Council, and it was not until that resolution was carried that architects awoke to the great danger in the course proposed. Those who awoke to it formed themselves into a so-called "Defence Committee," and formulated the grounds for their opposition to the proposition of the Unification Committee. The Defence Committee nominated a list for the Council elections last June, which they issued to

REGISTRATION OF ARCHITECTS

the voters in the country, with a statement for unification and the grounds of their support of registration. They asked the electorate to decide definitely between the issue of unification and registration. The Registration Committee adopted a similar course, sending out a statement of their views to all the constituents. Therefore the position was this : A clear issue of principle was put before the constituents by the contending protagonists, and each group set forth their nominees. What was the result ? By a vote, which I think I am right in saying was a record vote in the annals of this Institute, nearly the whole of the nominees of the Council and the vice-presidents put forward by the Registration group were returned, while very few of the old Council were re-elected. That was a clear mandate from the electorate to men who were sent by them to the Council, and to the vice-presidents, to ban unification and to pursue registration. What course did the Council take ? What did they do the moment they found themselves returned by an overwhelming majority ? They set to work to justify the pledge they had given in writing, that if they were returned to the Council they would devote themselves to the promotion of registration. They have, during all these months, persistently, without thought of the personal sacrifice or the time and energy involved, devoted themselves to this purpose, and have produced the draft of a Bill which, they believe, carries the different views of the constituents who sent them to the Council in order to formulate and carry through those views. No one would pretend that the document, as it is before us, is a perfect one ; it must be subject to alteration and emendation ; but the principle behind it is the one which has been established by the vote of the electorate which is behind this Council and behind this general meeting. The protagonists of unification, naturally disturbed, cried out at once for a postal vote, for a plebiscite. Nothing offensive is meant when I remind you how often that cry has been sent out in the larger world of politics by a disgruntled minority. If I carry my contention a point further, I say we asked for unanimity before we took steps towards registration. I submit that while human minds are as they are, unification is unattainable on any subject, and if we are to await unification, we shall never attain the unification demanded by many or the registration demanded by the majority. Therefore to ask us to postpone action in order to achieve unification first is to ask for the impossible. With regard to the risk of failure, the risk of every great movement in this country, and in every other country, of opposition and failure gives pertinacity and strength for a return to the attack. I hope we shall go forward with this Bill, even if we are met with strenuous opposition—that we shall go forward with it as a first step towards the attainment of a great public purpose. That purpose may be summarised in two words : first, to admit into the area of registration every practising architect, and when that has been done and the interval of four years has elapsed, to close the doors and make ourselves a closed profession into which only those can enter who have passed the statutory examination and test. I want, also, that we shall have the opportunity of protecting the public against the employment of the incompetent. The public has no guidance in this at present ; a man may be a house agent and undertake architect's work. We want to make that impossible. By closing the profession and subsequently admitting only those who are entitled to practise by examination, the public shall have a true guide which they can use for their safety.

Mr. ALAN MUNBY [F.] (President of the York and East Yorkshire Architectural Society) : You have asked for an opinion from the Allied Societies, and I come with the opinion of York members, who are prepared to support the Bill. It has been considered in great detail. We should have been given more detail and more time to discuss the measure, but, substantially, we support it. The whole Society practically places itself in my hands as to the direction they should take in voting. The general feeling is that provided the Council says that this

measure has been well thought out, and that it is likely to be fruitful in the solution of the problem, they are prepared to give their support to the measure.

Mr. FRANK WOODWARD [A.] : We have had an interesting exhibition of the difficulties of getting a Registration Bill through ; we have had an even more interesting illustration of the difficulties of getting unification in the profession itself. Had we proceeded to unification as outlined about a year ago, the scheme would have been opposed by those who were returned by the electorate to the Council in opposition to unification. Therefore it seems to me that before you can get unification as a measure, you have to get unification of the profession. You apparently all wish for registration as such, therefore I appeal to you to forget, for the moment, whether you want unification first, or afterwards, and to give your best endeavours to helping us to mould this Bill into such a form that it will be acceptable to the majority.

Mr. PERKS : I have very little more to say. Mr. Warren said he did not know what the scheme of unification was. If Mr. Warren will look into the JOURNAL of the 6th of May last year, he will find the answer. The most convincing speech this evening in favour of proceeding with this Bill has been the one made by Major Barnes. If anything were wanted to convince me that we should go on with the Bill, it would be supplied by Major Barnes's speech. He tells us how persistent the dentists were ; Parliament would not hear them first of all ; but, with enormous perseverance, they persisted. The dentists had no unification, as you would call it. I have it on the authority of the Parliamentary agents that no Act of Parliament has ever been passed which admitted the members of any profession into the chief society. If we get registration we get unification. And in the case of the nurses, look at the opposition there was. Nobody thought we should get this through in one year. Major Barnes talked about fighting, and said we wanted to go out into the open. Yes, we do ! You will never get registration if you stop in these funk-holes, and the unification scheme is the worst funk-hole I ever heard of.

The CHAIRMAN : I shall now take the vote on Mr. Dawber's amendment.

149 voted in favour of the amendment ; 74 against.

A MEMBER (to the Chairman) : Give a casting vote.

The CHAIRMAN : What is the use of asking me to give a casting vote, with those figures ? The amendment now becomes the substantive motion. The motion is, "That this Bill be not considered until other professional societies and interests affected have been consulted and a general consensus of opinion obtained in favour of the Bill." I ask for a vote on that.

166 voted in favour, 83 against.

The CHAIRMAN : I declare the motion carried by the required two-thirds majority.

WHITGIFT HOSPITAL, CROYDON.

A fully attended conference of representatives of societies and other bodies opposed to the demolition of the Whitgift Hospital was held at the Royal Institute of British Architects on 6 February, with Mr. Paul Waterhouse, P.R.I.B.A., in the chair. It was decided to take joint action in opposition to the Bill promoted by the Croydon Borough Council.

Royal Gold Medallist.

The President announced at the last meeting of the Institute that the Council proposed to submit to H.M. the King the name of Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D., as a fit recipient of the Royal Gold Medal of Architecture for the current year.

The Birmingham Civic Society *

BY WILLIAM HAYWOOD [F.R.I.B.A.], HON. SECRETARY, BIRMINGHAM CIVIC SOCIETY.

IN this description of the constitution and work of the Birmingham Civic Society, I believe that you seek information which will help towards similar work being done here, in Manchester, by a Society of your own—possibly by this Federation. I shall therefore give you as faithful a record of our work and methods as is possible in the time at my disposal.

It will be difficult to give my address coherence, but I will endeavour to be as little discursive as possible in dealing with a subject which so readily branches along attractive by-ways; and to get rid of some of these asides at the outset, I will sketch quite briefly the general modern movement towards civic betterment of this character, before taking in more detail the work with which I have been actively associated.

In 1890 (twenty years before the first Civic Society appeared in England) the first Municipal Art Commission was established at Boston, U.S. It is not implied by this comparison of dates that the first stirrings in this phase of Civic Consciousness in England were twenty years behind those of America. The somewhat tardy employment of civic societies here is partly explained by our activities in other sections of civic awakening, and partly by our national psychology, which is not easily moved to corporate expression in matters of this kind. This reluctance is very marked in connection with Art Commissions, of which the first British example has been set up recently in Birmingham. For the better understanding of this Commission, I purpose to say something more of its American prototypes.

The first such Commission appears to have been established by a Boston Law of 1890, which authorised the setting up of a jury to which all works of art for municipal ownership must be submitted for approval before acceptance. This experiment in the legal control of amenity was wisely restricted to particular classes of works of art, and made no attempt to influence the character of design in structure. The next step in the same direction, and on a similarly experimental basis, was taken by the city of Baltimore in 1895, the Mayor, and seven members representing local cultural bodies, being elected to serve as Commissioners for the purpose of controlling the erection of statues, fountains, arches, monuments or memorials of any kind to be erected in any public place or municipal building, or any variation in any such existing works.

Boston enlarged its powers in 1898, when it was provided that the Commissioners should be five in number, appointed by the Mayor from lists supplied by selected art groups, the time of service to be for five years, and a change of personnel to be made each year by the automatic retirement of one member. Power of veto was taken upon all municipal paintings, mural decorations, statues, bas-reliefs, sculptures, monuments, arches, ornamental gateways and other structures of a permanent character intended for ornament or commemoration, all of which

had perforce to obtain the sanction of the Commission before acceptance. The Commission also acted, when requested by the Mayor or the City Council to do so, with respect to "any municipal building, bridge, approach, lamp, ornamental gate or fence, or other structure erected or to be erected upon land belonging to the city, and in respect of any arch, bridge, structure or approach, the property of any corporation or individual, and extending in, over or upon any street, avenue, highway, park or public space." These powers constitute in effect a control of all purely decorative art for public purposes and, subject to a request by the local authority, a control of all amenity in public structure.

New York set up its first Commission in 1898, and extended its powers in 1901 and 1907. In the original act it was thought wise to follow the lead of Boston and Baltimore, and to be conservative, in view of the experimental nature of the work, for which reason the mandatory provisions of the 1898 Act only applied to paintings, sculptures and purely decorative works. Later, these mandatory powers were extended.

The following notes on the work of the New York Art Commission will probably be a sufficient indication of the establishment and working of similar Commissions in other cities of America. The first few years were difficult. The Commission had no permanent quarters, and met in the homes and offices of various members (a usual and very undesirable condition with young Commissions and Civic Societies). In 1902, however, offices were provided in the City Hall, the Municipality took over the cost of administration, and at the same time an executive officer, a clerk and a typist were appointed. It was at this time that the jurisdiction of the Commission was extended to cover all public structures built wholly or in part upon public land; also upon the lines, grades and plotting of public ways and grounds, the only exception being that when such structures cost \$350,000 or less, the Commission may be requested by the Mayor or the Board of Aldermen not to act. Such a request has never been made. As the Commission showed willingness and ability to function effectively, it gradually became the custom for the mayor to refer to it all important structures, and later practically all structures. Hence the various extensions of power already referred to, which have merely put into legal form, what had already become a common practice. During its first four years the Commission received an average of six submissions annually, but in 1907 (the ninth year) one hundred and sixty-eight submissions were dealt with, and in the year 1912 two hundred and sixty-three, increases which tell their own story.

In conclusion of this section, it may be summarised that by 1912 there were seventeen Art Commissions in America, ranging in power from an advisory capacity (as in the case of the National Commission at Washington or that of the City of Charleston) to the fully organised New York Commission, which forms part of the City government, and has power to approve or disapprove both municipal and private projects.

* A Paper read before the Manchester Society of Architects.

THE BIRMINGHAM CIVIC SOCIETY

In addition to the above, there is a Civic Association in America which represents the local activities of two hundred cities, but whether their programme of work is similar to that of the English Civic Societies I am unable to say.

I come now to that phase of civic betterment in this country which may be regarded as within the province of civic societies ; and I believe I am right in saying that "The City Guild" of Liverpool, inaugurated in 1910, stands as the first body of this kind in England. The Guild apparently made a good start in membership, but during and since the war it does not appear to have been very active.

"The London Society," founded in 1912, has from the outset had the support of many very distinguished people, and of such public bodies as the Royal Academy, the Royal Society of Arts, the Royal Institute of British Architects, the Royal Society of Sculptors, the Surveyors' Institution and the Incorporated Society of Municipal Engineers. In its first year four hundred members were enrolled, some of whom appear to have fallen away during the war, but in 1919-20, the membership was more than doubled, and this rate of increase has probably been maintained, since it has been fully justified by the excellent work accomplished, including as it does the wonderfully interesting and useful development plan, and also the recently published *London of the Future*. With a subscription list in 1920 of £550 a year, and a life membership reserve fund of £536, the Society has apparently got well away from the cruder forms of financial difficulty.

Civic societies now exist in Birmingham, Cardiff, Chesterfield, Glasgow, Leeds, Nottingham and Sheffield, and, I believe, in one or two smaller places. Some are just formed, some have been established four or five years, and some, no doubt, are more or less in that state of suspense which ensues when the warmth of good intentions is brought in contact with the apparently insoluble apathy of a Philistine public and its representatives. A new civic society in the provinces has more than its share of difficulties. I suppose the number of other societies that fail to "make good," even when the objects in view are mildly or frankly selfish, must be very high. The professional associations of provincial towns, for instance, with their automatic agenda of business happenings, are sometimes quite difficult to hold together ; and it is naturally much more difficult to maintain an interest in the pursuit of abstract beauty. Yet if civic work of this kind is unusually difficult, it is also unusually important, and there are encouraging signs that the difficulties will rapidly grow less, now that public opinion is veering towards an increased interest in urban amenity.

In the matter of policy it may be noted that two methods of procedure are possible for civic societies : the public may be aroused by propaganda, to require the support of their municipal representatives for a clearly defined policy favourable to amenity (a line of action which it is possible might involve some change of departmental personnel) or alternatively, they may work as an advisory body in association with existing conditions, when those conditions are sufficiently friendly towards the objects in view. The first method has certain obvious advantages and is much used in America, but English psychology and municipal

conditions will usually suggest the second method for adoption in this country, if local authorities and their officials are sufficiently open to this sort of collaboration.

Speaking generally, we in Birmingham have been as fortunate in the reception of our overtures as we had any reason to expect, and our results are a tribute both to municipal administrative capacity, and our own ability to put forward ideas in such practical terms, that they deserve and receive respectful consideration.

The Birmingham Society (founded in 1918) has not, so far, aimed at a large membership. It was an early decision of the Council that we should test our opportunities, and our ability to meet them, before going to the public for support, and we have been able to do this, largely by virtue of a grant of £300 a year from the Birmingham Common Good Fund.* This grant to the Civic Society is made from year to year, and while it is not regarded by the trustees nor ourselves as permanent, the probability is that it will continue while we need and deserve it.

Respecting the important matter of office equipment, those of you who saw Professor Abercrombie's article on "A Civic Society" in the *Town Planning Review* of April, 1920, may remember the following reference to the need for a full-time secretary and independent quarters. He says : "It is absolutely essential for the work of the Society that there should be a permanent and paid secretary, and an office, however small, should be obtained. It is a great mistake to attempt to make business men responsible for the secretarial work in connection with a civic society. Nor is a part-time secretary sufficient ; besides the purely secretarial work, there is the continuity of the Society's action, which can only be maintained and stimulated by having someone whose sole object it is to keep it going. The somnolence which has crept over certain civic societies can be directly attributed to this absence of a permanent secretary, for when any job of work occurs, a committee of busy men is apt to find excuses for shelving it, if on their shoulders the burden alone falls. On the other hand, a few minutes of advice from these same members of the committee is sufficient for the secretary's guidance."

This is most true as regards offices, and, in its first year, the Birmingham Society took two rooms for committee and secretarial purposes, which we regard as a quite essential provision although a heavy charge upon our resources, but I am not sure that I agree with Professor Abercrombie with respect to the secretary. We have failed with two, and the fault was not altogether, I think, with the secretaries. My experience suggests that an honorary standing is almost essential when seeking interviews with influential men, in order to submit to them well-meant but unsought opinions. Such interviewing and many other matters are urgent, and cannot wait for council sanction, nor for the approval of a member of committee ; moreover, an extensive technical knowledge is of vital importance when making first approaches, in order to influence on the spot matters susceptible of alternative action. In

* A Municipal Trust established by Alderman George Cadbury in 1917, and controlling at that time an endowment fund and an amenities fund of £10,000 and £3,000 respectively. These amounts have since been very greatly increased.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

these and other ways, the professional secretary is handicapped, so that I very much doubt his ability to maintain continuity of action, where there are no precedents to guide him, and no agreed or recurring order of work established. One could say more on this matter, but it is enough for my present purpose that partly for these reasons, and partly because the Birmingham Society had need of the money for more urgent purposes, a typist was engaged in 1920 and all other secretarial business was given to the honorary secretary.

It now remains to preface my notes on the work of the Society, by a statement of its general aims. These are as follows :—

No. 1. To stimulate historical interest in the city, and to preserve all buildings and monuments of historical worth.

No. 2. To preserve all objects of beauty, and to maintain a vigilant opposition to all acts of vandalism.

No. 3. To promote a sense of beauty, and to stimulate civic pride in the domestic and civic life of the citizens, by urging the adoption of the highest standards of architecture for domestic buildings, offices, warehouses, factories, etc.

No. 4. To work for a more beautiful city :—

- (a) By advocating the public acquisition of land for the provision of open spaces for recreative purposes, parks, parkways, squares, gardens and ornamental features at road crossings, etc.
- (b) By assisting with advice any scheme or works controlled by public bodies, ranging from town planning to designs for parks, bridges, fountains, memorials, shelters, seats, lamp standards, tram-way masts, and the like.
- (c) By co-operating with the Education Committee and Training Guilds for the development of local art, and helping to co-ordinate the efforts of existing societies by uniting architectural, engineering, artistic and handcraft groups in a common aim.

No. 5. In addition to influencing the work of others, to select suitable projects to be carried out by the Society itself.

No. 6. The Society shall seek to carry out these aims by means of newspaper and other propaganda, including exhibitions, lectures, competitions, etc.

In working out this programme, contact with the city authorities (other than that established by the Lord Mayor as President, and the annual election of two members of the City Council to serve on the Council of the Society) has been kept green by the occasional purchase of open spaces for presentation to the City as recreative areas. The last purchase of 42 acres, adjoining Mr. Chamberlain's residence at Highbury, has just been completed, the land being conveyed to the City with an agreement that the Society is to be consulted in the layout and treatment of the grounds. These purchases were made possible by the generosity of anonymous trustees who placed £15,000 at our disposal for this purpose in 1918.

From the first, the Society has worked hard to get every phase of recreation in the city co-ordinated and reduced to a system, with a view to providing proper facilities for those areas at present neglected, especially in the centre of the city. A resolution to the Lord Mayor from one of

several meetings resulted in invitations from the City Parks Committee to representatives of various organisations, to discuss our suggestions, and a Special Committee now exists to consider and report upon the whole question of recreation in its broader aspects, a work which is held up at present by lack of funds, the trust money in our hands not being available for this purpose.

Another of our park activities is associated with a scheme for the special treatment of a road junction (agreed to by the Public Works Department) which includes the provision of a new entrance to our principal suburban park. Lord Calthorpe, the local landowner, is giving two corner sections of land (about one acre), and the Society has allocated £1,000 towards the cost involved in special features of the scheme. This work is likely to be carried out at an early date as part of an unemployment scheme.

Two Park Guides have been published, one of the Lickey Hills reservation, which is now in its third edition ; and one of Sutton Park, recently issued ; these guides are in great demand. We publish without profit. We exclude all advertisements, and we take pains to make these and our other publications carry the message of amenity which we exist as a society to inculcate.

A gold medal is awarded annually by the Society to the author of the work judged to have added most to the recent amenities of the city. This award was intended originally to be given to the best street façade, but such a limited application would have resulted in far less significance for our award than it now has. The fact that the bronze medal of the Royal Institute of British Architects is awarded to façades in London, is no authority for similar action in the provinces. Sectionalism is necessary in London, but in other than metropolitan areas such subdivision would be weakening, especially when practised by civic societies. Our first award in 1921 went to Music in the person of Mr. Appleby Matthews, conductor of the Municipal Orchestra, and our second to Mr. Barry Jackson in recognition of the high civic importance and artistic distinction of his work at the Repertory Theatre. In each case the ceremony of presentation was given a definite civic character, and it is already evident that this public recognition of noteworthy service to the higher life of our city is warmly approved on all sides.

In such matters as the design of street decoration for public ceremony, the city authorities willingly seek our aid, as when staging the Armistice ceremony in 1921 and 1922. The scheme prepared by the Society for this occasion arranged the several factors of the ensemble in suitable relation one to another, leading naturally to a massed arrangement of coloured silks draped from the podium of the Town Hall to the ground, with a pedestal for floral tributes below, and a rostrum for the City's representatives under the colonnade above. Time, money and materials were short, but we succeeded in giving a dignity to the occasion which it had previously lacked. It is now quite usual for the Society to be consulted on occasions of similar character.

Another phase of our work is represented by a project for the preservation of the old village of Northfield, within the S.W. Birmingham town-planning scheme. This work had the sympathetic support of the Public Works Department during its preparation, and the proposal eventually

THE BIRMINGHAM CIVIC SOCIETY

put forward now forms part of the town plan. Moreover, a photographic record of the village having been made and its history written up, the work was published as one of our brochures. Schemes of this kind have a special importance to-day, for they illustrate very clearly the need for preserving such picturesque buildings, villages and natural scenery as remain about our cities, at a time when rapid building developments may thoughtlessly destroy them.

The nature of the committee is best understood from the clauses of its constitution, which have been recently amended, and now read as follows :—

(1) The committee shall consist of not more than twelve ex-officio members, and shall have power to co-opt four additional members, who shall be selected for technical knowledge in art matters. The election of such members shall be made at the first meeting in the year, and they shall serve for not more than two* years consecutively.

(2) The following shall be ex-officio members of the said committee :—The Lord Mayor, a representative of the Birmingham Public Works Committee, a representative of the Education Committee, the City Surveyor, the Vice-Chancellor of the University, the Principal of the University, the Director of the School of Art, the Director of the School of Architecture, the President of the Birmingham Architectural Association, the Chairman and the Hon. Secretary of the Civic Society.

(3) The Committee shall elect a President and Hon. Secretary from its own members whose term of office shall be for one year.

(4) The Committee shall have power to adopt its own rules of procedure, and three shall form a quorum.

(5) The findings of the Committee upon all matters submitted to it shall be in the nature of recommendations only.

(6) The Committee shall hold all matters submitted to it in confidence ; no matter referred to it shall be divulged, and no report of its proceedings issued except by previous agreement with the Corporation Committees concerned.

(7) The Committee shall in ordinary circumstances report upon any matter submitted to it within thirty-six days, provided that any submission after the 12th of the month shall be dated as received on the first of the month following, but shorter periods may be arranged with the departments concerned for reports on urgent work, or an extension of time may be arranged where there is no urgency.

(8) Hereafter all such new designs for public buildings, bridges, lamps, gates, fences, public conveniences, or other structures to be erected upon land belonging to the City, all such proposals for planning and laying out new parks or park extensions, all such new statues, fountains, arches, monuments or memorials of any kind to be erected in any public street, square, park or municipal building, as may be selected for submission to the Advisory Art Committee by the City departments concerned, shall be reported upon by the Advisory Art Committee.

You will notice that we are still, as it were, on probation. The City authorities reserve the right to accept our advice or not ; they also submit their proposals to us at pleasure ; but we are anxious to make no false step in a matter of such far-reaching importance, and it is for us so to prove

our capacity by the advice we give, that we shall accomplish out of deference to our wisdom, that which we have no power to enforce.

Such new methods as these are best put in motion gradually, and if you recall my references to early caution and subsequent activity in America, you will see that we have taken an equally reasonable course, and that success is very largely our own affair.

Clause 6 of the Advisory Art Committee's constitution stipulates that no details of its work shall be divulged, but I may say in quite general terms that the spirit of co-operation between the Committee and the City departments is excellent ; that we already have much work to do ; and that one of the greatest pleasures in doing this work comes from the knowledge that it has an immediate bearing upon actualities.

R.I.B.A. ANNUAL DINNER, 1923.

It has been decided by the Council that the Annual Dinner of 1923 shall take the form of a banquet in connection with the Bicentenary Celebration of Sir Christopher Wren.

The dinner will accordingly be held on Monday, 26 February 1923, at the Hotel Victoria, Northumberland Avenue ; and, in place of the usual after-dinner speeches, addresses will be delivered by the President, Sir Reginald Blomfield, R.A., and Mr. Mervyn Macartney, F.S.A., dealing with various aspects of Wren's life and achievements. A number of distinguished guests are expected, and it is hoped that there will be a good attendance of members.

The price of tickets is 17s. 6d. for members, and for members' guests (exclusive of wines and cigars), and £2 for members and for members' guests (inclusive of wines and cigars). A special card will be supplied for guests, and it would be a convenience if members would kindly give the names of their guests when applying for tickets. All applications, with cheques, should be addressed to the Secretary.

Early application would greatly facilitate the arrangements ; and if members would send an intimation to the Secretary some days beforehand as to the friends near whom they desire to sit, every endeavour will be made, when arranging the plan of the tables, to meet their wishes as far as possible.

ARTHUR KEEN, *Hon. Secretary.*
IAN MACALISTER, *Secretary.*

VISIT TO CITY CHURCHES.

The Art Standing Committee have arranged a visit to the City Churches on Saturday, 24 February 1923, beginning at 2.30 p.m. Mr. Arthur Keen, Hon. Secretary R.I.B.A., has kindly consented to conduct the visit.

The following churches will be visited :—

- 2.30. St. Stephen's, Walbrook.
- 2.55. St. Mary Abchurch.
- 3.20. St. Mary's, Aldermanbury.
- 3.45. St. Margaret Lothbury.
- 4.10. St. Lawrence Jewry.
- 4.35. St. Mary-le-Bow.

Members and Licentiates desiring to take part should apply to the Secretary R.I.B.A. as soon as possible.

* Length of time not yet finally agreed.

The Bicentenary of the Death of Sir Christopher Wren

The Royal Institute of British Architects has arranged to celebrate the bicentenary of the death of Sir Christopher Wren, which took place on 25 February 1723.

With the assistance of other bodies interested, a Grand Committee has been formed for the purpose of drawing up a suitable programme and assisting to carry it into effect.

PROGRAMME.

COMMEMORATION SERVICE IN ST. PAUL'S CATHEDRAL.

Monday, 26 February, 2.30 p.m.—The Dean and Chapter of St. Paul's have arranged a special Commemoration Service on Monday, 26 February, at 2.30 p.m. The members of the Grand Committee, led by Mr. Paul Waterhouse, President of the R.I.B.A., and accompanied by the Lord Mayor and Sheriffs of the City of London, will assemble in St. Paul's Churchyard at 2.20 p.m., and proceed into the Cathedral.

In the course of the service an Address will be delivered by the Very Rev. W. R. Inge, D.D., Dean of St. Paul's. The Anthem to be sung will be "O Clap your Hands," by Greene, who was Organist of St. Paul's, 1718–1755.

The members of the Grand Committee, accompanied by the Lord Mayor and Sheriffs, will then proceed to the Crypt, where the President of the Royal Institute will lay a wreath upon the tomb of Sir Christopher Wren.

The service will be open to the general public.

4 p.m.—The Lord Mayor will entertain the members of the Grand Committee at tea at the Mansion House.

7 for 7.30 p.m.—The Royal Institute of British Architects will give a "Christopher Wren Commemoration Banquet" at the Hotel Victoria, Northumberland Avenue. The members of the Grand Committee and a large number of other distinguished guests have been invited to be present. In place of the usual after-dinner speeches, commemorative addresses, dealing with the life and work of Wren, will be delivered by the President of the R.I.B.A. (Mr. Paul Waterhouse), Sir Reginald Blomfield, R.A., and Mr. Mervyn Macartney, F.S.A., Surveyor of St. Paul's Cathedral.

EXHIBITION.

26 February to 3 March, 10 a.m. to 6 p.m., Saturdays 10 a.m. to 1 p.m.—An Exhibition of drawings and photographs, illustrating Wren's work, and of books, letters, and other relics, will be held in the Galleries of the Royal Institute.

A small Exhibition arranged by the Public Record Office will be open to the public between 2 p.m. and 4 p.m. (except Saturdays and Sundays) in the Museum of the Public Record Office, Chancery Lane, W.C.2. Autograph letters of Wren, original drawings and other contemporary documents will be on view.

VISITS.

19 February to 3 March.—A programme of visits to Wren's principal buildings, under the general direction of Mr. Percy Lovell, B.A., A.R.I.B.A., Hon. Secretary of the London Society, has been arranged by the Selborne Society. These will include specially guided visits to St. Paul's Cathedral, the City Churches, Chelsea Hospital, Hampton Court Palace, Kensington Palace, Greenwich Hospital, and the Universities of Oxford and Cambridge. Full particulars of these visits, which are open to the general public, and the necessary tickets can be obtained on

application to Percival J. Ashton, Esq., 72, High Street, Bromley, Kent. (Early application should be made.)

MEMORIAL VOLUME.

By arrangement with the Grand Committee, Messrs. Hodder and Stoughton will publish a Memorial Volume, dealing with various aspects of Sir Christopher Wren's life and work, under the general editorship of Mr. Rudolf Dircks, Librarian of the Royal Institute of British Architects. The volume will contain facsimile reproductions of original letters and drawings of Sir Christopher Wren, numerous reproductions of engravings, and original drawings by various artists, as well as a number of coloured plates by well-known artists (including Sir G. Kneller's portrait), and contributions by S. D. Adshead, F.R.I.B.A., Professor of Town Planning, London University; Rev. S. A. Alexander, Canon and Treasurer, St. Paul's Cathedral; Sir William Bayliss, F.R.S., D.Sc., LL.D.; Somers Clarke, Late Surveyor to the Fabric of St. Paul's Cathedral; J. Alfred Gotch, F.R.I.B.A., F.S.A.; A. R. Hinks, F.R.S., Gresham Lecturer in Astronomy; Arthur Keen, F.R.I.B.A.; Mervyn E. Macartney, B.A., F.R.I.B.A., F.S.A., Surveyor to the Fabric of St. Paul's Cathedral; Ellis H. Minns, Litt.D.; A. Beresford Pite, M.A.(Hon. Cantab.), F.R.I.B.A., Professor of Architecture, Royal College of Art, South Kensington; A. E. Richardson, F.R.I.B.A., Professor of Architecture, London University; Sir William Schooling, K.B.E.; Arthur Stratton, F.R.I.B.A., F.S.A., Reader in Architecture, London University; Laurence Turner, Past Master, Art Workers' Guild; W. Henry Ward, M.A., F.R.I.B.A., F.S.A.; Mr. Edward Warren, F.R.I.B.A., F.S.A.; Maurice Webb, D.S.O.; with introduction by Sir Aston Webb, K.C.V.O., C.B., F.R.I.B.A., President of the Royal Academy. It will be published on 26 February at the price of £5 5s. and upwards, and all the profits from its sale will be handed over to the St. Paul's Cathedral Preservation Fund.

FANCY DRESS BALL AND CARNIVAL.

9 March.—The Architectural Students of London have arranged to hold a Fancy Dress Ball and Carnival in the Galleries of the R.I.B.A. on 9 March 1923. The profits will be devoted to the St. Paul's Cathedral Preservation Fund. (For tickets and particulars apply to the Secretary, The A.A., 34, Bedford Square, W.C.1.)

IAN MACALISTER, Secretary R.I.B.A.

VISIT TO CAMBRIDGE.

The attention of members is particularly called to the visit to Cambridge on 27 February 1923. This visit forms part of the Wren Bicentenary Celebrations, and is arranged in conjunction with the Selborne Society. The main Wren buildings to be seen are the Library of Trinity College, the Chapel of Pembroke, and Emmanuel College. At 4.15 the Master and Fellows of Pembroke College will entertain the party to tea. There will be an organ recital of contemporary music in Pembroke College Chapel at 5.15, for which a limited number of tickets are available for Members and Licentiates of the R.I.B.A. All applications for these tickets and for particulars concerning trains and other arrangements should be made to: Percival J. Ashton, Esq., Hon. Secretary, The Selborne Society, 72 High Street, Bromley, Kent.

NOTICES

The Examinations

THE SPECIAL WAR EXAMINATION

The following candidates have passed the Special War Examination held in Toronto in December last:—

BROWN : JOHN GREY, 292, Second Avenue, Longueuil, P.Q.
ILLSLEY : HUGH PERCIVAL, 134, Clandeboye Avenue, Westmount, P.Q.

JEFFREY : JAMES ROWE, 247, Elm Avenue, Westmount, P.Q.
KINGSTON : JOHN LYNDHURST, 336, Jackson Building, Ottawa.

MARROTE : EDGAR SAMUEL, 10D, Souvenir Avenue, Montreal.

NESBITT : JOHN KENNETH, La Tuque, P.Q.

PRIDEAUX : ARTHUR, c/o Messrs. Nobbs & Hyde, 14, Phillips Square, Montreal.

WIGGS : HENRY ROSS, Hessel Grove, St. Foy Road, Quebec, P.Q.

Notices

The Eighth General Meeting (Ordinary) of the Session 1922-1923 will be held on Monday, 19 February 1923, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held on the 5 February 1923; formally to admit members attending for the first time since their election.

To read the following paper, "Architecture and Architects in India," by H. V. Lanchester [F.J.]

BUSINESS MEETING, 5 MARCH 1923.

An election of members will take place at the Business General Meeting, Monday, 5 March. The names and addresses of the candidates (with the names of their proposers), found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws and recommended by them for election, are as follows:—

AS FELLOWS (4).

KENYON : ARTHUR WILLIAM [A. 1907], 22 Surrey Street, Strand, W.C.2 ; 47A Russell Road, Kensington, W.14. Proposed by David Barclay Niven, Professor S. D. Adshead, S. B. Russell.

ROBERTSON : ANDREW [A. 1893], 278 St. Vincent Street, Glasgow ; 121 Woodstock Avenue, Shawlands, Glasgow. Proposed by David Salmond, James Lockhead, Wm. B. Whitie.

SOISSONS : LOUIS EMANUEL JEAN GUY DE SAVOIE CARIGNAN DE, O.B.E., S.A.D.G. [A. 1918], Blue Ball Yard, 64 St. James's Street, S.W.1 ; 62 Handside Lane, Welwyn Garden City. Proposed by Horace Farquharson, W. H. Ward, Professor A. E. Richardson.

WORNUM : GEORGE GREY [A. 1921], Blue Ball Yard, 64 St. James's Street, S.W.1. Proposed by Arthur Keen, John W. Simpson, Maxwell Ayrton.

AS ASSOCIATES (9).

DIXON : CHARLES GUY [Special War Examination], c/o Dr. W. H. Dixon, Vereeniging, Transvaal, S. Africa. Proposed by Robert Atkinson, Charles E. Varndell, George Edw. Withers.

HASWELL : PERCY BENSON, B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], 10 Grosvenor Park Road, Chester. Proposed by Edgar Quiggin, Gilbert Fraser, E. Bertram Kirby.

KNOTT : ALFRED STOCKEN [Special War Examination], 1 Greycoat Gardens, Westminster, S.W. Proposed by Ralph Knott, Robert Atkinson, George Edw. Withers.

NEWHAM : WILLIAM BENJAMIN TURNER [Special Examination], c/o Association of Transvaal Architects, Exploration Buildings, Commissioner Street, Johannesburg, S. Africa. Proposed by C. E. Varndell, J. A. Gotch, Robert Atkinson.

OWEN : GEOFFREY LEYLAND [Special War Examination], Dockmaster's House, King George Dock, Hull. Proposed by Professor C. H. Reilly and the Council.

SILK : GUY WHITEHALL [Special War Examination], 5 Provost Road, Hampstead, N.W.3. Proposed by Major Harry Barnes, Robert Atkinson, E. Stanley Hall.

STOCKS : CLIFFORD WILLIAM BURNETT [Special War Examination], Chamber of Commerce Building, East London, S. Africa. Proposed by W. White-Cooper, Franklin K. Kendall, Albert J. Thompson.

TAIT : ALFRED ALEXANDER [Special War Examination], Spes Bona Buildings, High Street, Grahamstown, S. Africa. Proposed by Franklin K. Kendall, W. White-Cooper, W. Hawke.

WILLIAMS : ALBERT ERNEST [Special Examination], 111 Russell Street, Gisborne, New Zealand. Proposed by Walter R. Jaggard and the Council.

R.I.B.A. STREET ARCHITECTURE MEDAL.

Members and Licentiates are informed that they need not submit a photograph and elevation of a building which they wish to nominate for the R.I.B.A. Street Architecture Medal, except in cases where they wish to nominate a building erected to their own designs. The Secretary R.I.B.A. has arranged to inform architects of buildings for which nominations have been received, and will invite them to send photographs and elevations for the Jury's consideration.

Members' Column

OFFICE WANTED.

A MEMBER R.I.B.A. wishes a room in West End office at moderate rent. Please send full particulars. Apply Box 906, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

PARTNERSHIP WANTED.

IRISH architect wishes to purchase partnership in the South of England. Age 40. F.R.I.A. Ireland and M.T.P.I. First-class connection and could introduce work in near future. Special knowledge of housing and town planning.—Apply Box 3223, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

APPOINTMENTS WANTED.

ASSOCIATE (disabled, 27) desires change. Experienced working drawings, details, specimens, field surveys, and good knowledge quantities. Good references.—Apply Box 926, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

ASSOCIATE R.I.B.A., with 12 years' experience in good New York City offices, including Cass Gilbert, Trowbridge and Ackerman, J. Armstrong Stenhouse, Fredk. Sterner, finds it desirable, for family reasons, to return to England, and would be glad to hear of any suitable proposition. Previously in practice in London. Now and for past two years engaged as designer with one of the best known younger New York men. For further information apply Box 1513, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

ARCHITECTURAL ASSISTANT requires post in any capacity. Many years' experience in the Tropics and South Africa. Married; 35. First-class draughtsman: excellent references. An immediate appointment is essential. Not afraid of real work. Apply Box 445, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

GENTLEMAN WITH CAPITAL, A.R.I.B.A., varied experience in London and provinces—travelled—good designer and capable business man with practical knowledge, requires share in bona-fide practice or Senior Assistant's post with view to same. Box 2513, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

LICENTIATE wishes to communicate with any member or licentiate in Liverpool and district with a view to preparing Bills of Quantities for any work they may have in hand or in prospect. Terms on application. Experience 26 years.—Apply Box 455, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Minutes VII

SESSION 1922-1923.

At a Special General Meeting summoned by the Council under By-Law 64 and held on Monday, 29 January 1923, at 5 p.m.—Mr. A. W. S. Cross, Vice-President, in the chair. The attendance book was signed by 120 Fellows (including 25 members of the Council), 144 Associates (including 5 members of the Council), and 10 Licentiates. Letters from the President and Mr. J. A. Gotch [F.] having been read, the following Resolution was moved by Mr. Sydney Perks [F.], and seconded by Mr. C. H. Heathcote, Vice-President :

"That the Draft Bill be approved in principle subject to further consideration of the various clauses."

The following amendment was moved by Mr. G. A. T. Middleton [A.], and seconded by Mr. Bernard Dicksee [F.] :

"That the draft Registration Bill be referred back to the Council for both general and detailed reconsideration before being again submitted to a General Meeting."

After discussion, in which Professor A. Beresford Pite [F.] and Mr. W. Gillbee Scott took part, the amendment was put to the vote and negatived by a large majority.

The following amendment was moved by Mr. E. Guy Dawber [F.], and seconded by Mr. Josiah Gunton [F.] :

"That this Bill be not considered until the other professional Societies and interests affected have been consulted, and a general consensus of professional opinion obtained in favour of the Bill."

The amendment was supported by Major H. C. Corlette [F.], Mr. H. T. Buckland [F.], Major Harry Barnes [F.], Sir Aston Webb, P.R.A., Past-President, and opposed by Mr. Delissa Joseph [F.], Mr. F. Woodward [A.], Mr. Alan Munby [F.], and Mr. Sydney Perks [F.].

The amendment was put to the vote and carried by 149 votes to 74. It was then put as a substantive motion and carried by 166 votes to 83.

The Chairman stated that the Resolution had been carried by the necessary two-thirds majority.

The proceedings terminated at 6.55 p.m.

Minutes VIII

SESSION 1922-1923.

At the Seventh General Meeting (Ordinary) of the Session 1922-1923 held on Monday, 5 February 1923, at 8.30 p.m.—Present : Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 30 Fellows (including 15 Members of the Council), 43 Associates (including 3 Members of the Council), 4 Licentiates and a large number of visitors.

The Minutes of the Meeting held on 22 January 1923, having been published in the JOURNAL, were taken as read and signed as correct.

The Secretary announced that the Council had nominated for election to the various classes of Membership the gentlemen whose names were published in the JOURNAL for 13 January.

The Hon. Secretary announced the decease of Mr. A. T. Walmisley, M.Inst.C.E., elected Hon. Associate 1896, who represented this Institute on the Joint Committee on Reinforced Concrete, and also served on the Science Standing Committee ; Mr. F. P. Halsall, elected Associate in 1894 ; and Mr. T. Roderick, elected Licentiate in 1911 ; and it was RESOLVED that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following member, attending for the first time since his election, was formally admitted by the President :—Mr. A. V. Farrier [A.].

The President announced that the Council proposed to submit to His Majesty the King the name of Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D., as a fit recipient of the Royal Gold Medal for Architecture for the current year.

The President, having delivered the Annual Address to students, a vote of thanks was passed to him by acclamation on the motion of the Right Hon. Viscount Leverhulme, seconded by Mr. W. R. Davies, C.B., of H.M. Board of Education.

Mr. H. V. Ashley [F.] read a review of the works submitted for the Prizes and Studentships 1923.

The President, having responded to the vote of thanks to himself, moved a vote of thanks to Mr. Ashley, which was passed by acclamation.

The Presentation of Prizes was then made as follows, in accordance with the Deed of Award :—

The R.I.B.A. Essay Prize.—The Silver Medal and Cheque £26 5s. to Mr. Lionel B. Budden, M.A., A.R.I.B.A., for his Essay on "An Introduction to the Theory of Architecture," submitted under the motto "Aristus."

The R.I.B.A. Measured Drawings Prize.—The Silver Medal and cheque £50 to Mr. Wesley Dougill, B.Arch., Liverpool, A.R.I.B.A., for his Measured Drawings of the Campidoglio, Rome, submitted under the motto "Oxonop."

The Tite Certificate and £100.—The Tite Certificate to Mr. John Chiene Shepherd, A.R.I.B.A., for his design for An Italian Embassy in a European Capital, submitted under the motto "Tujja," and a Certificate of Honourable Mention to Miss Isabel Maud Chambers for her design submitted under the motto "Poffergy."

The Pugin Studentship Silver Medal and £75.—The Medal to Mr. A. Newton Thorpe.

The Owen Jones Studentship Certificate and £100.—The Owen Jones Certificate to Mr. Cyril Forbes Filbey.

The Henry Saxon Snell Prize and £60.—The President introduced Mr. Ernest G. Theakston, F.R.I.B.A., as the successful candidate for the Prize for his design for "A Maternity Home and Infant Welfare Centre," submitted under the motto "Ad Rem," and presented Certificates of Honourable Mention to Mr. George Bertram Edward Norburn, A.R.I.B.A., and Mr. Alfred John Brown, A.R.I.B.A., for their designs, submitted under the motto "Roona" and the device of a Crane.

The Godwin Bursary and Wimperis Bequest £130.—The Godwin Silver Medal to Mr. William Thomas Benslyn, A.R.I.B.A.

The Grissell Gold Medal and Cheque £50.—To Mr. Percy Morrey, M.B.E., A.R.I.B.A., for his design for a Warehouse, submitted under the motto "Rivet."

The R.I.B.A. Silver Medal for Post-Graduate Students of "Recognised Schools."—The Silver Medal to Mr. Percy Benson Haswell, of the School of Architecture, University of Liverpool.

The Ashpitel Prize.—The books to the value of £10 to Mr. Alexander Simpson Reid, A.R.I.B.A., represented by Mr. Simpson Low, A.R.I.B.A.

The proceedings closed at 10.5 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of £2s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.



An Introduction to the Theory of Architecture

BY LIONEL B. BUDDEN, M.A. [A.], INSTITUTE ESSAY MEDALLIST, 1923

I. THE VALUE AND FUNCTION OF THEORY IN ART	233
II. THE DEFINITION OF ART	234
III. THE METHOD OF APPROACH	235
IV. THE EXPRESSIONIST THEORY	235
V. CRITICISM OF THE EXPRESSIONIST THEORY	236
 STATEMENT OF A GENERAL THEORY OF ART.	
VI, VII, VIII, IX.	
VI. THE MENTAL SUBSTANCE OF ART	238
VII. THE PURPOSE OF ART	240
VIII. BEAUTY AND TRUTH IN ART	240
IX. THE TECHNIQUE OF ART	241

No useful development of theory could be conceived which did not take into critical account the contributions of the past, and which did not owe much to them. I would not, therefore, seek to minimise such debts of the present essay. Where my obligations are not specifically acknowledged, it is because I have assumed that the sources in question are too well known and generally accepted for it to be necessary to mention them, and because I have wished to avoid over-documentation.

Briefly stated, the object of the essay is to formulate a theory of architecture on the basis of a general theory of art. This has meant a representation of architectural theory from a point of view and in a manner not hitherto adopted by theorists in architecture, though some of the elements of my thesis are implicit in their works. How far the position and method chosen are right must, of course, ultimately be judged by the extent to which the conclusions reached are held to correspond with the facts of art in general and of architecture in particular.

STATEMENT OF A THEORY OF ARCHITECTURE.	
X, XI, XII, XIII, XIV, XV, XVI, XVII.	
X. THE CONCEPTION IN ARCHITECTURE	244
XI. TECHNIQUE IN ARCHITECTURE	246
XII. PRINCIPLES OF EXPRESSION	247
XIII. TRUTH IN ARCHITECTURE	249
XIV. UNITY AND BEAUTY IN ARCHITECTURE	249
XV. THE APPRECIATION OF ARCHITECTURE	251
XVI. EMPATHY	251
XVII. CONCLUSION	252

I

IT is sometimes maintained that to attempt to state or discuss the theory of an art is an illusory and profitless exercise of the mind; and that it is only in periods of artistic decadence that the arts become the subject of literary analysis.* The real artist, it is asserted, does not theorise about his art, he practises it—and leaves the theoretic field to those who care for the irrelevant for its own sake.

Two defects in this position render it untenable. One is a confusion of thought, the other an error in historical fact.

The first proceeds from the idea that the intention of theory in art is not simply to discover, as far as may be possible, the nature, function and means of art, but to show how art can be created. This idea attributes to

* *The Ministry of Art*, by R. A. Cram (London : Constable, 1914), pp. 67 and 216.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

artistic theory an end it could never reasonably have in view. Theory does not seek to supplant what is called inspiration, but to supplement it ; it does not offer an intellectual system as an equivalent for the creative faculty ; it puts knowledge at the disposal of the artist. It has, in effect, a twofold purpose—to clarify understanding and to increase power. What art is, what it sets out to do and how it does it, those are the issues with which the theory of art is concerned. Neither artist nor audience can afford to leave them in obscurity. A clear comprehension of the right answers to the questions they present must inevitably give to artistic activity a greater certainty of direction, a more absolute precision of aim ; and to those who experience the effects of that activity a more vivid and just appreciation.*

The second fallacy in the conception of theory as an affair outside the direct concern or even remote interest of real artists can be easily exposed. Undeniably there are and have been many artists and amateurs of art whose mental limitations have rendered them perfectly indifferent to artistic theory. But this attitude is not itself evidence that the persons who exhibit it are therefore endowed with true artistic ability, nor is it symptomatic of periods of exceptional virility in the arts. To a vast number of artists, including those not least distinguished, the precise nature of art, the ends it proposes and the means it adopts have been and continue to be the subjects of profound interest ; and that not simply for intrinsic reasons but also for purposes of corrective criticism. In all ages of liberal thought—ages that have synchronised with great artistic movements from antiquity up to the present time—architects, musicians, painters, and writers have sedulously endeavoured to examine the constitution of their respective arts and have contributed at length to the theoretic literature of their subject. The bibliography of architecture amply illustrates this truth. During the great epochs of Greek and Roman building,† during the culminating periods of the Renaissance in Italy, France and England, and later throughout Europe and America, architects have formulated their creed as artists, have established principles of practice and canons of judgment. They have been impelled to do this, not when the authentic spirit of art has been absent, but when it has been most vividly present, when it has informed whole schools and been immanent in works of genius. In short, the view of theory as a thing adventitious and parasitic, attaching itself to art only when art is in process of decay, cannot be justified either philosophically or historically.

If the result of theoretic study has not yet been to reach finality, it is not because those who have occupied themselves with it have been engaged upon a vain en-

deavour. The data with which the theory of art is concerned is of a highly varied and complex kind. Problems are presented not less difficult or provocative of discussion than those which occur in logic or ethics. Arguments and theses that once seemed satisfactory are found by experience to be inadequate to explain all the facts. Values have to be revised and truths restated. For these reasons alone theory which is to comprise any body of proved and enduring doctrine must inevitably be the work of generations.

II

A study of the nature, function and means of a particular art involves an analysis of the nature, function and means of art in general. For architecture, painting, sculpture and all other forms of artistic expression are recognised as being simply different manifestations of a special kind of activity that is essentially the same in character and intention, however it may present itself, whether through a building, a poem, or a sonata. This fact is, indeed, expressed in the use of the common term art.‡ A basis of agreement is thereby tacitly implied—though the precise kind and degree of that agreement is not always realised. Art is, in fact, a word quite often loosely used and extended to cover what are simply exercises of some special skill.§ Thus one hears people refer to the “art of cooking,” the “art of conjuring,” and the “art of diplomacy.” But these things, it will be on reflection admitted, are not arts in the sense in which architecture, music and sculpture are arts. There is, to take but one illustration, a profound disparity in nature and intention between two such operations as the mixing of an omelette and the composition of a symphony. Yet the word art will be used in connection with both. It becomes, then, necessary to describe more clearly what we mean when we speak of art. We cannot hope to define it absolutely, since all knowledge is relative and involves *a priori* assumptions of one sort or another. But we can at least establish a distinction between art and such processes of skill as are exemplified by cooking, conjuring and diplomacy. And this I think it necessary to do now even at the risk of anticipating something of my main argument.

The distinction may be made upon many grounds. There is, however, one elementary difference of purpose which it is possible to state quite simply at the outset and which may suffice at this stage. When a painter sets out to paint a landscape, actual or imaginary, he does so because he wishes others to see that landscape as he himself has seen it, to realise it with all its implications precisely as he has realised it. When an architect de-

* Cf. *Reason in Art*, by George Santayana (New York : Charles Scribner's Sons, 1921), pp. 149–151.

† Vitruvius : *The Ten Books on Architecture*, translated by M. H. Morgan (Harvard University Press, 1914), pp. 198–199.

‡ *The Things which are Seen*, by A. Trystan Edwards (London : Philip Allan and Co., 1921), p. 277.

§ *The Attribute Proper to Art*, by T. H. Lyon (London : Selwyn and Blount, 1921), p. 75.

THEORY OF ARCHITECTURE

signs a building, he means it to produce on the minds of those who behold it an impact identical with that made by the conception on his own consciousness ; he wants it to set up the same intellectual and emotional reactions, to have the same spiritual effect. Here we have a clear and final distinction between the purpose of art properly so called and whatever may be the varied purposes of those other activities to which the name of art is frequently and incorrectly given. Art aims at transmitting creations of the mind so that they reproduce themselves as definite and complete experiences. Activities that are styled arts and that have not this object—and our instances of cooking, conjuring and diplomacy represent a large class—are falsely designated. But architecture, painting and sculpture, literature, poetry, drama and music all come within the authentic category. They satisfy the same test of purpose. They are truly arts.

III

Because the philosophy of art as a whole must comprehend that of architecture, our main argument will first be developed for the greater part in general terms. I shall then proceed to apply it directly to architecture and to observe how it works in that sphere. By this means I trust to avoid a common defect of theories derived in the first instance from individual arts and consequently based upon data of too restricted a kind. From limited and superficial evidence, principles have been induced and held to apply to arts the governing conditions of which are in many respects widely different.* Sooner or later it becomes apparent that the practice of these arts ignores or directly contradicts the rules prescribed for them and does so with admirable effect. Exceptions are, moreover, frequently discovered in the phenomena from which the conclusions were originally derived : and the whole theoretic structure is undermined and collapses. The lesson is sufficiently obvious. If the theory of an individual art is to be securely established, its foundation must rest on something broader than its own special facts. It is necessary to examine that which underlies all particular manifestations before we can hope to arrive at what is essential or to discover the fundamental laws in obedience to which practice is successfully motivated in any art.

IV

I propose that our own inquiry should begin at the point to which investigation of the nature of art has been

* Vide *Laocoön*, by G. E. Lessing, translated by Sir Robert Phillimore (London : George Routledge and Sons). Cf. Walter Pater : "All art constantly aspires towards the condition of music" (*The Renaissance*, by Walter Pater (London : Macmillan and Co., 1912), p. 140).

carried by the philosophy of Benedetto Croce.† For the theory of art I have to propound in this essay has its genesis in that philosophy. It departs, however, from Croce's doctrine at cardinal points, and certain of its principal conclusions directly conflict with those at which Croce himself arrives. But the first grounds of my thesis are drawn from his now famous expressionist theory, because it has seemed to me that by that theory more than by any other yet put forward the basic phenomena of art are accurately defined and at the same time segregated from alien considerations. With the historical antecedents of Croce's Aesthetic ‡ we need not concern ourselves. It is generally admitted that the work of ancient philosophy and of all subsequent study in aesthetic has been absorbed in his researches. So much those who disagree with his conclusions will concede. His disciples—and their numbers seem constantly to be increasing—claim considerably more. They assert that he is not merely the greatest aesthetician of our age, but the greatest that has yet appeared in the history of philosophy ; and they claim for the theory of art he offers that, besides being admirably simple and direct, it is the only one that convincingly explains what art is, establishes its real relation to beauty and determines true artistic values.§ These are large claims, and the fact that they are frequently made and widely accepted is in itself a reason for subjecting them to careful scrutiny and for testing their validity in architecture. Filtering through translations and explanatory works || and through articles in literary reviews, Croce's philosophy is being diffused amongst artists and amateurs. By many it is received with enthusiasm since it can be interpreted so as to give a specious cloak of logic to illogical prejudices, or can be employed to justify a facile agnosticism in artistic matters. By others it is being supported on more serious grounds. But the rapidly growing popularity, the topical importance of Croce's Aesthetic is not the reason I would advance for taking it as the first object of our consideration. I propose that we should do so because I believe that in the expressionist theory he has set forth, whatever fallacies may or may not be comprised within it, there is actually to be found the nucleus of a theory which, properly developed,

† *Filosofia dello Spirito. I. Estetica come Scienza dell'Espressione e linguistica generale*, by Benedetto Croce (Laterza e Figli, Bari, 1902). English translation (from 3rd edition, Bari, 1909), *Aesthetic : Benedetto Croce*, by Douglas Ainslie (London : Macmillan and Co., 1909).

‡ Vide Historical Summary in Croce's *Aesthetic*, English translation, pp. 251–369 ; or cf. *A History of Aesthetic*, by B. Bosanquet (London : George Allen and Unwin, 1917).

§ Vide Prefaces by Douglas Ainslie to English translations of Croce's *Aesthetic* (Macmillan, 1909) and *The Essence of Aesthetic* (London : William Heinemann, 1921). Cf. *The New Laocoön*, by Irving Babbitt (Boston and New York : Houghton Mifflin Co., 1910), pp. 223–228.

|| E.g., *The Philosophy of Benedetto Croce*, by H. Wildon Carr (Macmillan and Co., Ltd., London, 1917).

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

accounts for the facts of every art, and which illuminates the practice of each, of architecture no less than of the others.*

Freed from its esoteric and over-specialised vocabulary, that part of Croce's Aesthetic which immediately relates to art may for our purpose be summarised as follows:—

All art consists of intuitions, that is, of mental images received into consciousness from sensations and perceptions. These images are apprehended without reasoning: they are spontaneously and automatically efformed. In so far as they are true intuitions they are unities fully expressed in the mind. An intuition cannot be said to exist except it be known to mind by being expressed, and by being expressed as a unity. Beauty is complete, ugliness incomplete expression. Neither beauty nor ugliness is inherent in external phenomena, whether natural or artificial. They are the products of a form of the activity of mind. When that activity is successful, when an intuition is fully expressed, beauty results. Beauty is, in effect, art: and art is mental.

Intuitions have not the power to be more or less than whole: as unities they cannot differ in degree of completeness. But it is possible for their content to vary in amount. They may be rich or poor, simple or complex, and it is by the relative richness and complexity of an aesthetic intuition that its value may be judged. The richer and more complex the intuition, the greater the art. For art by its nature is quantitative, not qualitative.

In order to communicate art, it must be externalised; and what are called works of art are simply the outward symbols or indices serving to externalise intuitions. Their function is to act as stimuli to the intuitive faculty in other people—who in their turn themselves become artists efforming in their own minds aesthetic images. The process of appreciation is thus the same creative process recognised in the artist as intuition.

As art is intuitive mental expression and as the intuitive faculty of the mind is by its nature outside logical control, it is vain to endeavour to construct a theory of art that can be practically applied, and vainest of all to attempt to do so by analysing the stimuli known as works of art, which are external to mind. "Such inquiries are as if in Political Economy one were to seek for the laws of exchange in the physical nature of the objects exchanged." †

* Whilst my initial premises are derived from Croce, I am indebted, for much critical help in their subsequent development, to Mr. Lascelles Abercrombie, with whom the main lines of the present theory were originally discussed. Mr. Abercrombie has since published the results of his own investigation of the subject in *An Essay towards a Theory of Art* (London: Martin Secker, 1922). The importance of such a work from his pen I do not need to stress. It is, however, only fitting that I should say that a perusal of it must incidentally reveal, as no merely formal acknowledgment of mine can do, the extent of my obligations to him.

† *Aesthetic*, by Benedetto Croce, trans. by Douglas Ainslie (Macmillan and Co., London, 1909), p. 178.

It is, then, incorrect to speak of a technique of an art in the sense of a theoretic system of design, for there can be no system. Technique can only rightly be used in reference to the devices which assist an artist to externalise his expressions. "Thus is born a theory of architecture comprising mechanical laws, information relating to the weight or the resistance of the materials of construction or of fortification, manuals relating to the method of mixing chalk or stucco; . . . Such collections of precepts abound in all literatures. And since it soon becomes impossible to say what is useful and what useless to know, books of this sort become very often a sort of encyclopædias or catalogues of desiderata. Vitruvius, in his treatise on Architecture, claims for the architect a knowledge of letters, of drawing, of geometry, of arithmetic, of optic, of history, of natural and moral philosophy, of jurisprudence, of medicine, of astrology, of music and so on. . . . Were we to give a scientific form to the manuals of the architect, the painter or the musician, it is clear that nothing would remain in our hands but the general principles of Mechanic, Optic, or Acoustic." ‡

The idea that impersonal principles of design can be induced from a study of external forms is, in short, an illusion. Art is the personal product of the individual mind and can by no means be conjured out of its nature or domain.

V

A just estimate of Croce's "philosophy of the beautiful" must admit that in certain directions it advances further than any previous Aesthetic. For the first time the intuitive basis of art is definitely established. An autonomous non-logical faculty of the mind is revealed as originating mental images: these whether simple or complex are, when successfully realised, whole: each is a complete coherent unity. Furthermore, the quantitative factor in art, though given too absolute a value, is effectually stressed, as it has not been in any earlier theory. Finally, the process of externalisation is clearly distinguished from that of mental expression and the true function of works of art—as stimulants of the intuitive faculty—is assigned to them.

These very considerable achievements may be set to the credit of Croce's philosophy. They are the results of a new method of approach to the subject and stand as landmarks in the development of the theory of art. So much must be emphasised because in other respects the expressionist doctrine, of which they are integral elements, is open to fatal objections.

In the first place, Croce mistakes the stuff of art for art itself. Intuition-expressions are not art, they are the mental material from which art is made. In equating

‡ *Ibid.*, pp. 185-187.

THEORY OF ARCHITECTURE

art with expression and expression with beauty, Croce assumes that all mental images that are complete are *ipso facto* beautiful. It is indispensable to his argument that he should do so. But the assumption is unrelated to facts. Intuitions of ugliness are a universal experience. And as to beauty, whether we conceive it, as it is conceived in an open system of philosophy, to be a form of reality external but in a measure known to mind, or whether, as in a closed system, we associate it with a phase of mental activity, it appears to us in either case to be an effect produced by works of art, not art itself. We do not create beauty : we create art, and the phenomenon of beauty is one of the consequences. Art is an external product, beauty a quality that results from art. Expression, again, as Croce uses the term, is a form of mental activity. There can be no equation of these things ; they are fundamentally dissimilar and their dissimilarity vitiates an essential part of his thesis.

But the superstructure which Croce raises upon the mirage of their identity is even more deceptive. The entire case which he makes to prove the inutility of any grammar of art stands or falls by one elementary test. Is the process of externalisation a simple copying, a literal reproduction of the mental image, or is it not ? To put the question in another way : Does the intuition already exist elaborated in the mind in the identical terms in which it is ultimately embodied in what is called a work of art ? If so, then Croce is right, for, as the intuitive image obeys no logical laws, it would be absurd to apply them to its material duplicate. But to suppose that intuitions form themselves in this manner is contrary to experience and common sense.

In playwriting—and the same holds good of any other art—between the immediate apprehension of a subject, theme or *motif* and its externalisation there is a process of development into which logical factors enter and which is sometimes dominated by them. All dramatic intuitions have to be *worked out*. The larger and more complicated the subject, the more obviously is this true. Though intuition also operates in giving to an image a body, so too, does intellect, developing, modifying and rejecting according to conscious critical standards. Theoretic action cannot, indeed, rightly be eliminated at this stage, if a work of art is to achieve its intended effect.*

Analysis of the externalised forms of any art shows that certain motives, certain arrangements of its elements produce certain effects. Of these facts the artist avails himself when he wishes to communicate his intuitions ; he can do so consciously and upon logical grounds. From the study of works of art, empiric principles are evolved constituting a technique or contin-

* “ In der Kunst muss der Gedanke immer auf Verwicklung gerichtet sein, und in der Darstellung die Kritik heraustraten, die dem schöpferischen Geiste notwendig beiwohnen muss.”—Karl Friedrich Schinkel (*Schinkel*, by Hermann Ziller (Leipzig, 1897), p. 104).

gent grammar of design. In architecture, as much as in literature, an artist renders himself intelligible by observing the grammatical laws of his art. Croce in attempting to limit the architectural application of the word “ technique ” to Mechanic does not appear to appreciate the significance of his own definition of the term, “ *Knowledge employed by the practical activity engaged in producing stimuli to aesthetic reproduction.* ”† That is precisely what the theory of design is in architecture, and in every art, and that is what it has always been.

Discoursing upon “ Technique and the Arts,” Benedetto Croce observes “ this last case (that is, the attempt to furnish a technique of Aesthetic) is found when men possessing strong scientific instincts and a natural tendency to philosophy set themselves to work to produce such theories and technical manuals.” ‡

The retort may very justly be made that the case of Croce himself occurs when a philosopher, having a profound distrust of intellectual processes in art, endeavours to devise a system that will exclude them. In the instance just quoted—as elsewhere—he obscures the issue. The writers whom he dismisses as over-reaching scientists do not attempt to furnish a technique of intuition at all, but a technique of externalised form, which, as we have seen, is a thing perfectly possible.

This confusion between the conditions of intuition and those of externalisation is one of long standing. Oscar Wilde, in his essay “ Pen, Pencil and Poison,” repeats with approval an aphorism of Wainwright’s : “ I hold that no work of art can be tried otherwise than by laws deduced from itself : whether or not it be consistent with itself is the question.” § The observation is true so far as it relates to the mental image, and false regarding the presentation of the image. Intuition is personal, a law unto itself. Externalisation is subject to general impersonal laws. The value of an intuition can only be judged by experiencing it ; but the success with which it is externalised can be estimated by reference to common empiric principles which are independent of the intuition, and which govern its conveyance to an audience. Croce, though the first aesthetician to separate definitely the inward from the outward mental activity, remains in this respect much in the same position as many of his predecessors because he is blind to the consequences of the distinction he has made.

Art is the externalised product esformed from intuitive material for purposes of communication, and as such it must be conceived in harmony with the empiric principles of communication. To convey an idea in speech or writing from one person to another, verbal or

† *Aesthetic*, by Benedetto Croce, trans. by Douglas Ainslie (Macmillan and Co., London, 1909), p. 183.

‡ *Ibid.*, p. 187.

§ Oscar Wilde, *Intentions*, “ Pen, Pencil and Poison ” (Methuen and Co., London), 8th Edition, p. 68.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

literal forms must be employed that will be understood by both, a common grammar or empiric convention must be obeyed or the end in view will be frustrated. The same necessity obtains in every art. When it is ignored, incoherent, impotent works are the result.

The accusation may fairly be brought against Croce that he frequently fails to realise the implications contained within his own reasoning. Thus he demonstrates with perfect lucidity that the circumstance of architecture being conditioned by utility in no way prejudices its claims to be considered a fine art :

" Another division of the beautiful which is still found in treatises is that into *free and not free*. By beauties that are not free are understood those objects which have to serve a double purpose, extra-aesthetic and aesthetic (stimulants of intuitions), and since it appears that the first purpose limits and impedes the second the beautiful object resulting therefrom has been considered as a beauty that is not free.

" Architectural works are especially cited, and precisely for this reason has architecture often been excluded from the number of the so-called fine arts. A temple must be above all things adapted for the use of a cult, a house must contain all the rooms requisite for commodity of living, and they must be arranged with a view to this commodity, a fortress must be a construction capable of resisting the attacks of certain armies and the blows of certain instruments of war. It is therefore held that the architect's field is limited ; he may be able to embellish to some extent the temple, the house, the fortress, but his hands are bound by the object of these buildings, and he can only manifest that part of his vision of beauty in their construction which does not impair their extrinsic but fundamental objects. . . .

" In respect to all this, we must observe, in the first place, that the external purpose, precisely because it is such, does not of necessity limit or trammel the other purpose of being a stimulus to aesthetic reproduction. Nothing, therefore, can be more erroneous than the thesis that architecture, for example, is by its nature not free and imperfect, since it must also fulfil other practical objects. Beautiful architectural works, however, themselves undertake to deny this by their simple presence.

" In the second place, not only are the two objects not necessarily in opposition, but we must add, the artist always has the means of preventing this contradiction from taking place. In what way ? By taking, as the material of his intuition and aesthetic externalisation, precisely the destination of the objects which serve a practical end." *

It is all clearly seen and admirably stated, but the corollary of the argument is not apparently even so much as suspected. If intellectual faculties can be exer-

cised in the choice of the subject to be intuified—as Croce tacitly admits they can be—then, given the intuition, they can determine also the way in which it shall be embodied. For both these selective processes come within the sphere of rational thought, both propose to themselves deliberate ends, and for the satisfaction of both logical means exist. Intuition alone it is that simply happens, and having no end has no means.

VI

Our examination of Croce's philosophy being carried thus far, I shall now proceed to the more constructive task of attempting to state a theory of art which, though it originates in Croce, moves to another conclusion. In my criticism of Croce's *Aesthetic* I have already to some extent anticipated this task. It remains, however, to develop the theory as a co-ordinated whole.

Intuitions are the mental substance of art. Every intuition reveals in analysis two complementary elements, content and form, both of which are equally essential to its existence. Content comprises the subject-matter of the intuition : in the case of an architectonic image this would be the sum total of a certain group of spiritual and practical requirements, in a word, what is technically called the programme : in a pictorial intuition visible phenomena and their associations would be the content. Form is the ordered pattern in which the subject-matter so presents itself to the mind that it constitutes a perfect unity. Content and form are indissolubly fused in the intuitive image as it occurs. But they may be distinguished from each other for theoretic purposes, and it is useful that they should be. The necessity of form in works of art, the symbols of intuitions, has long been established † and accepted, a necessity arising in the last resort from the fact that unity is an essential characteristic of every true intuition, so that we only know when we possess one by our grasp of it as a separate and complete experience. On the other hand, the proper nature of content and its importance have been less well understood. More especially has this been so in recent theories of art. The process of classifying and delimiting the respective subject-matters of the different arts, already carried too far in the nineteenth century ‡ (a result of pseudo-scientific influences), has to-day led to the invention of "pure" values in music and the visual arts. These values alone are held to count. To each kind of art a narrowly restricted province is assigned and the content of each is limited to what are termed "aesthetic" elements. Music is to present no more than a pattern of sound in time, painting simply composition in colour and tone ; architecture, the arrange-

* *Aesthetic*, by Benedetto Croce, trans. by Douglas Ainslie (Macmillan and Co., London, 1909), pp. 165-167.

† *The Poetics of Aristotle*, translated by S. H. Butcher, 4th Edition (London : Macmillan and Co., Ltd., 1917), pp. 31-35.
‡ *The Fine Arts*, by G. Baldwin Brown (London : John Murray, 1916), 4th Edition, pp. 205-207.

THEORY OF ARCHITECTURE

ment of three-dimensional shapes or "the expression of plastic ideas," as it has been called*—and so on. Everything in the nature of associative interest is to be excluded and everything that has a meaning. And as a supreme stroke of unconscious irony, to the works complying with these rules the name of "significant form" has been given.†

Now apart altogether from the fact that any art of which the subject-matter was thus restricted would inevitably perish of sheer inanition, this arbitrary reduction of content is not, never has been, and never could be an absolute and invariable condition of true artistic activity. The reason is simple. By far the greater number of our intuitions are composite images in which all manner of conceptions, associations and related knowledge are inextricably interwoven. However much we may try, we cannot eliminate these things or the interactions that are set up between them : we cannot abstract a part and ignore the remainder. Nor does any real artist attempt to do so in dealing with a complex intuition : for it is its very complexity that gives it strength and interest and that makes it effective artistic material. No one—unless indeed he be that remarkable phenomenon of modern criticism "the pure visual"—can contemplate, for example, Rembrandt's *Presentation in the Temple* and see in it nothing but a patchwork of colour and an arrangement of spaces and planes. The significance of the representative elements in that work and its dramatic import are as inescapable as their artistic value is immense. Illustrations of a similar character could be multiplied indefinitely in music, architecture and sculpture. To describe the intuitive content of such works as "impure" is not merely to use an epithet that is invidious and question-begging : it is to speak altogether beside the point. For the subject-matter of art has no concern with either purity or impurity, in the sense implied. Richness and vitality are the attributes that should distinguish it, and, for the rest, it does not matter from what sources the material is taken. Certainly in all arts there are to be found works of which the intuitive subject-matter is, to employ the fallacious adjective, "pure." But those works are not on that account to be reckoned as superior to others which have a more complex content. They exploit only a particular and very limited field, the possibilities of which are soon exhausted.

When, to take a case in point, fashionable critics profess to appreciate architecture for its "pure" qualities and rule out of consideration everything else on the score that it is adventitious and extrinsic to the fundamental nature of the art, they take up a false, if exclusive, position. For the whole business of architecture as

* *Architectural Heresies of a Painter*, by Roger Fry (London : Chatto and Windus, 1921), pp. 9, 25–32.

† *Art*, by Clive Bell (London : Chatto and Windus, 1916), 3rd Edition, p. 8.

an art is not merely the "expression of plastic ideas." Architecture has also to serve as the vehicle of intuitions that embody much more besides. It must express qualities of character, of social and traditional significance. It cannot reasonably be dissociated from concern with everything but solid pattern. The effort to regard it in that light is as sterile as it is unnatural. If such an effort were made by architects it could only result in their leading architecture into a cul-de-sac. There is no force in the objection that the expression of character and of social and traditional qualities is so much storytelling and falls therefore within the scope of literature but outside that of architecture. In this respect architecture does not poach on the preserve of letters and do badly and in a secondary and irrelevant capacity what literature does well as its primary function. Architecture takes a portion of the subject-matter common to all the arts and presents it in a specific way. Character and social and traditional significance are not adventitious and extrinsic to the content of architecture : they are of its very essence : and architecture gives to them an expression peculiar to itself—an expression that no other art could give. So also painting, music and sculpture embody and re-present in a manner that is uniquely their own the elements of their subject-matters, whatever those elements may be, whether shared by literature or by any other art. It is precisely that difference in the mode and conditions of embodiment and re-presentation—rather than any ultimate difference in content—that distinguishes the arts from each other. A picture, a building, or a sonata can never pretend to tell a story in the way a novel can ; but that is not to say that painters, architects, and musicians must not include in the material of their art matter that would inevitably receive another and very different treatment in literature ; or that, if they do include such material, it is to be regarded at the best as of secondary importance and at the worst as a blemish or excrescence.

It is as unreasonable to attempt to simplify the distinctions between the arts by insisting on impoverishing the content of each until only elements of contrast remain, as it is to try to establish their complete interchangeability and to maintain that poetry is eloquent painting, painting dumb poetry,‡ and architecture frozen music.§ The arts have a common function, but they fulfil it in radically different ways : their stock of intuitive material comprises elements that are common to all, but they each reform the material in their own manner, by their own technique and under governing conditions proper to themselves.

‡ *Laocoön*, by G. E. Lessing, translated by Sir Robert Phillimore (London : George Routledge and Sons), p. 56.

§ Fr'edrich von Schlegel. Cf. also G. W. F. Hegel, *The Philosophy of Fine Art*, translated by F. P. B. Osmaston, vol. iii, p. 65 (London : G. Bell and Sons, 1920).

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VII

The function of art is to externalise intuitions, which are valued in and for themselves and their associations—valued not as possessing didactic or utilitarian merit, but simply as giving pleasure. Without that function art would be purposeless and works of art would have no *raison d'être*.^{*} An artist is not simply a person who possesses the intuitive faculty to an exceptional degree : he is one who feels the urge and has the capacity to represent his intuitions by means of external symbols. He is impelled by a quite definite desire to impart to others what he has himself experienced. Unless that be granted, the existence of any work of art becomes inexplicable. Music is not composed, pictures are not painted, buildings are not designed in order that the artists respectively concerned may enjoy the exclusive pleasure of feeling these works arouse intuitions in themselves : for these intuitions they have already experienced : neither are such works undertaken out of caprice or mere excess of energy. To suppose that they were would be perverse and absurd. Every embodiment of art, every successful embodiment that is, whether actually executed with facility or not, has only been made possible by a laborious training in technique. It is the outcome of a serious discipline and it has, however frivolous its subject, a serious intention. It is to act as a vehicle of communication. To that end it is constructed, and in so far as it fails to convey a specific message just so far does it fail as a work of art.

Whilst intuitions, the substance of art, are mental, art itself is external to mind. Its true body and being are in works of art, apart from which it has no existence. The ability to create works of art and not the possession of an undisclosed wealth of intuitions, is the sign by which the artist is known and distinguished from other people. To speak of art as mental is to confuse its cause and its effect with the thing itself.

The externalisation of intuitions must necessarily be in terms the meaning of which is known. We establish our understanding of anything by relating it to the rest of our experience ; and if there be no connection between the new and what we know of the old, the new remains incomprehensible for us. Thus, when it was desired to devise a new medium for international communication, the language invented had to present familiar characteristics. Esperanto is not a new language in the sense in which, for example, some of those who demand a new style of architecture understand "new." It is a *mélange* developed from existing languages, and only by having its roots firmly planted in verbal and grammatical forms that were already known could it be a vehicle of communication at all. In exactly the same way must art in general exhibit connections with traditional modes of expression. The purpose of every work of art is to

* *An Essay towards a Theory of Art*, by Lascelles Abercrombie London : Martin Secker, 1922), pp. 45–49.

convey an image or intuition and, however original the theme may be, it must be communicated in terms that are in a large measure familiar.

In painting we have recently had a happy illustration of that truth. Impressionism and post-impressionism, because they were externalised in comprehensible terms, have survived as authentic developments of art ; but the cubist and vorticist movements have collapsed largely, if not wholly, because their exponents in their modernity resolutely refused to be intelligible. The fact that, in certain directions, and chiefly through applied science, we have advanced much further than man has done at any previous period does not divorce us from the past. Our philosophy, our politics, our drama and literature, the very vocabulary in which we think and speak, all are developments of what we have inherited. No grounds exist for supposing that art should be the one exception to the evolutionary law that controls our activities in every other sphere of life. Art could, indeed, only be an exception at the expense of being significant.

VIII

Taking art, then, as an affair of external symbols that have intuitive values or significance, we observe that when a work of art has successfully accomplished its purpose the effect of beauty results. Through the effect of beauty art is recognised as art.[†] How is the effect achieved ? By establishing a complete harmony between the unity of the mental image and the unity of the externalised symbol. Here, I submit, is the solid ground upon which the relationship of beauty to art may be held to rest. The quality of unity we know to be the invariable characteristic of all completely realised intuitions. Analysis of effective artistic activity shows that the same organic coherence must be preserved in the externalisation of intuitions and that it must be of a like nature. If this condition is fulfilled, there is beauty. Upon no other terms is beauty in art to be revealed, and art which is without beauty is not art. Any intuition, provided that it is authentic—that is, a spontaneous image known in its entirety—is potentially artistic material. Pleasant or unpleasant, it can be externalised by an artist and its presentation will be distinguished by beauty if it reflect the unity of the original. Thus we frequently encounter in literature, sculpture and painting an intuition of a repulsive subject, yet the artistic externalisation may be unquestionably beautiful. The only explanation which appears to me to meet the case and to accord with experience and observation is that in such instances there is a correspondence in unity between the thing apprehended and the thing executed.

† Cf. *The Philosophy of Fine Art*, by G. W. F. Hegel, translated by F. P. B. Osmaston (London : G. Bell and Sons, 1920), vol. i, pp. 125–144.

THEORY OF ARCHITECTURE

The question of the relationship of beauty to art has been persistently debated. It has given rise to endless misconceptions and to *idées fixes* that have falsely and unnecessarily complicated the theory of art to an extraordinary degree. Most writers on art have made the initial mistake of approaching the subject from the wrong end. Because they have seen beauty to be an invariable effect of successful art they have first embarked on inquiries into the nature of beauty, inquiries which have led them ever further and further away from art itself and have enmeshed them in speculative difficulties of the most remote kind. Art, its elements and constitution, cannot be divined by resolving beauty, any more than the physical structure of things can be discovered from a study of the light that reveals them. Beauty has many aspects, or it may be truer to say that there are many kinds of beauty—for it is by no means certain that all these effects which we call beautiful can be related, can be shown to have a common denominator and to come ultimately within the same category. There is ethical beauty, the beauty of fitness, natural beauty, the beauty that is revealed by art, and so forth. What each of these things is, and whether they can all be merged in some larger concept, are questions that concern aesthetic philosophy. They have nothing to do with the theory of art; and books which, under the title of *Aesthetic* or *Aesthetics*, profess to deal with artistic theory on the basis of some general or particular definition of beauty, by so doing befog the very issues they set out to clarify. It is to no purpose that the sixteen* or more kinds of beauty art may be supposed to exhibit are classified and analysed. Understanding of the nature and function of art is not thereby advanced one jot.† On all such points we are not called upon to interpose our private judgment. For the problem of art and the problem of beauty are separate and distinct, and all that the theory of art has to recognise is the fact that beauty occurs as a result of a work of art effecting its purpose. Beauty in art is the sign of successful achievement—a sign conclusive, indispensable, and self-sufficient. It is not within the competence of the theory of art to investigate beauty, and it is not necessary.

In another way the concept of truth has, not less fatally than beauty, proved a stumbling-block to writers on art. That it should be truthful has been assigned to art as its supreme mission. But to what must it be true? To nature? Obviously not always, for some arts have only a very occasional and partial concern with nature. To a religious or ethical creed? Not more than a fraction of the images of art have a religious or ethical content. To an abstract ideal of beauty? Beauty in art can

never be imagined except through some particular and concrete illustration of it. Yet the very strength and obstinacy of the conviction that art and truth have something to do with each other forbid us summarily to reject the belief as a fallacy; and I submit that, if we can see the matter rightly, it becomes apparent that there is a sense in which art, to be art at all, has to be truthful. Every work of art must be true to the image which it symbolises, must be so devised that it does accurately, clearly, with honesty and absolute faithfulness represent the original intuition that has inspired it. When we have said that, we have recognised the precise kind and extent of the relationship that should exist between art and truth, and we may leave undiscussed, because invalid, the different claims that have been made for art to be regarded as the constant vehicle of various objectified aspects of truth, natural, moral or otherwise.

IX

To return, then, to our proper subject. The function of art I have taken to be the externalisation of intuitions by means of symbols. Every such symbol or work of art is designed to evoke in the minds of those who see or read or hear it a certain image or co-ordinated series of images. Something mental has to be transferred through a suitable medium. In this purpose of communication we have a definitely practical object, the whole question being one of finding means to an end. The knowledge relating to those means is what is called technique. Originally technique is derived from the results of frankly experimental processes, from the method of trial and error by which every art develops; and the resources of technique are constantly being enlarged as the experimental method continues to disclose new possibilities. These disclosures are not always arrived at logically. Artists are often led to make a fortunate discovery of means simply by intuition—suddenly seeing the right solution of a difficulty in externalisation not by reasoning, but by immediate apprehension. For the intuitive faculty which creates the mental material of art, the faculty which is irreplaceable, unique and without parallel in logical thought, does not confine itself to the task that it alone can perform: it makes excursions into the realm of reason and there functions in place of the latter. But externalisation is a purely practical process with a practical object, and as such can, and to a considerable extent must, always be an affair of reason. If, then, intuition assist in the process, it does so, not as the only possible, but as an alternative instrument. The intellect in its rational capacity is here available for the work, competent to acquire its knowledge by generalisation logically, able to practise with selected means and deliberate aim. Technique is created by the intellect, and in it is summed up the rationalised knowledge of practice, however that may be gained, whether

* *Foundations of Aesthetics*, by C. K. Ogden, I. A. Richards, and J. Wood (London: George Allen and Unwin, Ltd., 1922), pp. 20–21. Cf. also *The Essentials of Aesthetics*, by G. L. Raymond (London: John Murray, 1907), pp. 16–38.

† *The Mistress Art: The Limitations of the Arts*, by Sir Reginald Blomfield (London: Edward Arnold, 1908), p. 139.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

through reasoning or through intuition. The extent to which artists are dependent upon a logical understanding of technique varies indefinitely. Some are able to rely more than others on their intuitive faculty, which, without the aid of reflection and more or less subconsciously, carries them successfully through. None, however, can wholly avoid reasoning at least a little about what they do, and in no case is an intellectual grasp of the nature of technique as a whole unnecessary or disadvantageous.

The technique of any art must be systematised into a body of applied knowledge before an artist can effectively employ it to increase the range of his own intuitive apprehension of technical resources. Unless it were possible for the accumulated technical experience of the past to be reduced to some sort of system, it would obviously be of little use. It would be at once too vast and too chaotic. But in the experimental development of every art broad principles are latent, and these empiric laws form, as it were, the structural framework of technique. When they are clearly revealed and understood, what would otherwise be a mass of dissociated and incomprehensible data falls into proper order and becomes significant and serviceable.

The principles to be observed in the practice of art are very varied in kind. First, there are those relating to the grammar of externalisation—to accident and syntax in literature, to harmony and counterpoint in music, to a correct use of the elements of design in architecture. Such principles must obviously be obeyed if any sort of articulate utterance is to result at all. That point I have already sufficiently stressed in my criticism of Croce's doctrine. But the practical laws of art include others of a different nature. It is the business of the artist to know and to take advantage of every influence, psychological and physiological, every motive of association and interest that will assist him to convey his message.* He must bring into play every auxiliary device that will reinforce the effect he wishes to create. And he can only do this by a conscious or subconscious knowledge of principles beyond those of the simple grammar of his art.

These principles, besides varying in kind with the technique of each art, vary also in range. Some apply to all the works in any given art, others only to a certain category of works. When I come to apply our general theory of art specifically to architecture, I shall give examples of principles that hold good for all works in architecture. Here, I propose to give two instances of principles, the one having a limited, the other a universal application in the arts to which they respectively refer.

The first is the case of a technical law affecting the externalisation of a certain kind of intuitions in painting

* *The Sense of Beauty*, by George Santayana (New York : Charles Scribner's Sons), p. 132.

—namely, images in which space and distance are the prime values. Deliberately or without knowing that we do so, we estimate the size of all objects in the open air by comparing them with the human figure. That is our unit of measurement when we judge approximately of the magnitude of a building, of a landscape or of any other thing to which we are not called upon to apply a mathematical scale. We do not say to ourselves that a man would go so many times into the height or width of a building or landscape, but we do judge the building or landscape to be large or small according to what we conceive to be the relationship of its size to that of an average human being. A painter confronted by the sort of subject—it might be a desert or a great sweep of moorland—that would naturally evoke an image of the order I have postulated is aware of the vastness of that subject because he feels himself to be diminutive in relation to it, and the impression of space and distance which he experiences and which constitutes, I have assumed, the most important factor in his intuition is directly derived from that fact. But the landscape which the painter beholds does not include himself as a visible feature in it ; he is on the hither side of "the picture-plane" (to use a technical term of perspective). If, therefore, he were to represent his intuition of the landscape as he actually saw it, it could not include himself. Presupposing, then, that no such object were present in the subject-matter, he would have to introduce something the size of which could readily and with fair certainty be related to the human figure. The object selected might be a tree, a road, a house or a figure itself ; but some thing or things there would have to be which would give us the key to the size of the whole. Otherwise we should not know whether we were looking at the representation of an image of a large or small subject, and so would miss an essential quality of the intuition. A principle of dimensional reference is involved and it has to be obeyed for the intended effect to be achieved in all pictorial works of this kind.

My second example is drawn from drama. It is generally conceded that a high degree of intricacy of motive and action and of subtlety in characterisation and in dialogue is ineffective on the stage. Wit and quickness of action are perfectly possible and may be valuable attributes in many kinds of plays. But the nature of practical drama prohibits the playwright, whose play is to be acted, from indulging in elaborate psychological and conversational adventures, which may be very properly undertaken in a novel. The greatest complexity of plot and the most delicate reactions of personalities to events and to each other can all be enjoyed and the last shade of meaning extracted from them in literature. For there the reader controls his own speed, retraces his steps as he wills, lingers over what he likes and savours everything to the full. Moreover, all distractions are eliminated ; he is free to focus his attention as he wishes, undisturbed. A

THEORY OF ARCHITECTURE

play is another matter altogether. Its action proceeds relentlessly. A complex of interests unfolds itself in a continuous movement, and our whole attention must keep pace with it. Only what is clear and simple, incisive and direct can survive in the presentation of a play and can impress itself upon our minds as it passes before us. Thus, the very qualities that distinguish and make great the novels of Henry James become defects in his plays, and have prevented them from ever being successfully produced. In drama the intuition has to be projected over the footlights and its externalisation must conform to the conditions that regulate the performance of that feat. What, for lack of a better term, I will call the principle of breadth must be realised in any play that has to be acted and not simply read. For the broad effects are the only ones that ultimately tell in drama.

The principles I have indicated as being operative, one in a certain *genre* of painting, the other in all dramatic works, could be supplemented by many other examples. I have instanced them only because they are representative and show that the technical principles of an art include other laws than those of syntax—laws that really determine which intuitions are suitable for externalisation and which are not. A knowledge of such principles affecting a particular art is not less essential to the practitioners of that art than is an understanding of its grammatical resources and limitations.

Both kinds of laws require to be known as they currently obtain. Not all are permanent; some become obsolete with changing conditions and cease altogether to be applicable; others persist in an altered form. But to point, for example, to the fact of continual modification in the syntax and inflection of language is not to prove that speech and writing can dispense with the regulations of grammar. The grammar of Chaucer is not that of to-day. Yet to make himself understood Chaucer was as much obliged to observe the laws of the language of his time as we are now compelled for the same purpose to adhere to the syntax of the twentieth century. The technical principles of art are conditional. They prescribe the lines along which externalisation can be effectively achieved at a certain period, and they change only as the conditions that control our enjoyment and understanding of art themselves change.

"Rules and models destroy genius and art," Hazlitt said *; but rules are not principles and models may be profitably studied without being imitated. For the real artist, problems of externalisation never recur in the precise manner in which they have presented themselves to his predecessors or contemporaries. Were they to do so, it would be proof that he was not an artist but a plagiarist. Yet every problem arises out of the development of art itself. Its adequate solution therefore de-

mands a knowledge of the principles that, intelligently applied, have solved those problems of which it is the lineal descendant. In art there is, in the literal sense, no new thing. Each fresh manifestation contains elements of the old and the already known. To no new occasion is a formula applicable; to none are ascertained principles irrelevant. We need not emphasise the fact that the mere acquisition of empiric principles cannot make an artist. The world is full of persons calling themselves artists, who have all the technique of externalisation and nothing to externalise. But though such knowledge is unable to create the stuff of imagination,† it is indispensable to the translating of that material into communicable form. Without it, art could at no time have reached articulate maturity, but would have been perpetually condemned to a state of mute abortion. Granted the gift of inspiration to any real extent, then it may be said that for the rest technique is power. An artist, however rich in imagination, is reduced to impotence if he be technically ignorant, whilst one endowed with the slenderest intuitive resources but having the requisite knowledge is able brilliantly to present his vision. For the artist the moral is plain. He must do more than labour to acquire the mechanical skill of his art; he must comprehend its rationale. He must know the principles through which works of art effect their purpose, and learn to distinguish between the laws that rightly discipline artistic action and the rules that paralyse it. He must, in short, master the technique of externalisation.

I have now outlined as far as I conceive it to be necessary the general theory of art which I believe comprehends and reconciles the practices of all the arts. That theory, to recapitulate its main points, assumes (1) intuitive images to be the substance of art; (2) the transmission of those images by external symbols to be the whole object which art has in view; (3) beauty to be the sign that the object has been successfully accomplished; and (4) technique to consist of a knowledge of the means whereby transmission can be most fully effected. On the first hypothesis, the arts are severally given a larger potential content than is allowed to them in current theories and the primary distinctions between the arts are held to be presentative. On the second hypothesis, the external nature of art is established. On the third, a correspondence in unity between the intuition and its external symbol is posited as the cause of the effect of beauty in art, the question of the nature of beauty itself being relegated to the sphere of aesthetic philosophy. And on the fourth, technique is conceived as an affair of rational and ascertainable principles, and resources are brought within the scope of technique that are not always recognised as belonging to it.

So far my architectural references have been inci-

* *Sketches and Essays*, "On Taste," by William Hazlitt (London : Grant Richards, 1902), p. 171.

† *Critique of Judgement*, by Emmanuel Kant, translated by J. H. Bernard (London : Macmillan and Co., 1914). p. 190.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

dental and by way of illustration. I have yet to show that the facts of architecture as a whole consistently support the theory I have formulated and that those facts can be most reasonably interpreted in the light of that theory. To do so becomes, then, my next and final purpose.

X

In my criticism of Croce's doctrine and in the statement of a general theory of art arising out of that doctrine, I have hitherto adhered to the use of certain terms. The mental images that constitute the material of art I have referred to as "intuitions," and the embodiment of them in symbolic form I have called "externalisation." This I have done partly because the terms are those employed by Croce himself and partly because their philosophic significance made it most appropriate to use them in the broader consideration of our subject. But now that we come to apply our theory to architecture, some modification in terminology is necessary. For "the intuition" I shall henceforth substitute "the conception" or "the idea," since these terms, however philosophically inapposite, are the ones more familiarly understood in that sense in architecture; and for the same reason I shall replace "externalisation" by "expression." As used by Croce, "expression" is limited in its meaning to a purely mental activity, to the efforming of the intuition in the mind. But in the vocabulary of architecture "expression" signifies the process of external design, and this I shall now mean when I speak of "expression."

If the general theory of art I have formulated is a sound one, and holds as well in the case of architecture as in any other art, then conceptions are the mental stuff of architecture: all architectural works are the symbolic expressions of conceptions; and the object of these works is, by expressive indication, to transmit the conceptions from the minds in which they have originated to the minds of others. That such is indeed the elementary truth about architecture becomes, I would claim, the more evident the more closely we investigate the nature of the art.

Let us first examine the way in which an architect arrives at a design for a given subject—a house, a bank, a theatre, or whatever it may be. He begins by absorbing the programme, by familiarising his mind with all the requirements of the subject and with the special conditions affecting it. The requirements will be of two kinds—practical and spiritual, *besoins matériels* and *besoins moraux*, as Guadet has called them.* If, for example, the subject be a bank, the practical needs will comprise the provision of adequate space, light and ventilation for the public and staff, the disposition of

the elements of the plan so as to secure the greatest efficiency in the working of the bank, the inclusion of all the necessary technical equipment of such an institution, and the ensurance of sound construction throughout. Particular conditions of latitude, locality and site will influence the treatment of these practical requirements, and will therefore have to be taken into account. The spiritual needs will be made up of the qualities or attributes that should be associated with a bank—solidity, dignity and sober opulence, qualities indicative of financial strength and integrity. And their interpretation again will naturally be influenced by racial, national social and historical factors.

The architect then first studies the programme to grasp and digest all that is implied in it, to appreciate it in all its aspects. As a result of this digestive process, in which the rational faculties normally do much of the work of assimilation, a conception embodying, or apparently embodying, what is required presents itself to his mind. This conception or idea may, when subsequently examined, prove not to be one that can be satisfactorily developed; in which case it will be found to have arisen from an imperfect absorption of the programme. It will therefore be abandoned and the study of the subject continued until the right kind of idea is discovered, or rather discovers itself.

For, however much logic may have been exercised in the preliminary understanding of the programme, the idea that occurs in the mind of the architect as a final conclusion comes not by reasoning but by intuition. Whether it emerges slowly by almost imperceptible stages or whether it flashes into consciousness at a single stroke, it is still something apprehended by the imagination, not a thing logically deduced by the intellect.

The fundamental characteristics of such an image or conception it is not easy to define, because the image has nothing to do with words and cannot properly be represented in them. Perhaps for this reason the fact that it really is distinct and separate from the building that symbolises it is not always appreciated. Architects in general receive a definitely stylistic training—by that I mean a training in the traditional forms of a certain convention or of certain conventions, Classical, Mediæval, Byzantine, etc., as the case may be. They come to think architecturally in the terms of those styles. The consequence is that their architectural conceptions are clothed almost from birth in traditional forms, and it becomes difficult, and sometimes nearly impossible, to recapture the perception of them in their original state. Certainly, where small and relatively simple conceptions are concerned, the stylistically trained mind operates with such swiftness that no appreciable interval elapses between the arrival of the idea and its transformation into terms of style. The change will often be so quickly effected in the mind that it will take place in the act of sketching; it will seem not to follow but to synchronise

* *Éléments et Théorie de l'Architecture*, by J. Guadet, Tome 1, p. 179.

THEORY OF ARCHITECTURE

with the occurrence of the conception, and so will not be apparent as a change at all. Hence the small and simple idea—of such a thing, say, as an elementary type of obelisk—is not a favourable example for illustrating the difference in nature between what is mentally apprehended and what is subsequently developed for embodiment in external form. A large and complex programme affords clearer evidence. Let us take as our instance a scheme for a great group of University buildings. In such a case it will be realised that the conception must so present itself to the mind that it has consciously and deliberately to be translated into terms that will make it explicit. A highly trained architect of long experience will most rapidly transcribe the conception into terms that are intelligible; but, when that conception is of such magnitude and complexity, even he will realise the difference between his inspiration and the stylistic expression of it.*

Difficult though it is to describe verbally the nature of the intuitive conception that must be at the back of every real work of architecture, it is yet possible to give an approximate definition of it. The image or idea must of necessity be a visual one ; it is something *seen* by the mind. I approach as near to an adequate account of it as I can hope to do when I say that it is an intensive and synthetic vision of architectonic form ; not a vision simply of pattern, of composition in mass, line and space, but a vision which is informed by the essential spirit of the subject, by its purpose, structure, social significance and traditional heritage (according to the relative importance of each in the conception), by its whole complex interest in fact.

That all this is present in an authentic and richly vital conception, moulding and determining its character, can be demonstrated by illustrations. We may suppose an architect to-day to be commissioned by some archaeologically-minded client to design a building which should meticulously adhere in type and detail to a Doric temple of the fifth century B.C. So limited by his programme, his conception could comprise very little more

* "Dans le plus vaste programme, en effet, vous faites d'abord abstraction des détails pour apercevoir seulement deux ou trois, peut-être quatre ou cinq grands groupes, d'importance diverse, dont vous concevez la proportion réciproque. Lequel devra avoir la position prépondérante, lequel aura la plus grande ou la moindre étendue ? Questions toutes de programmes et d'intelligence des besoins et de l'effet. Puis, marchant de l'ensemble aux sous-ensembles, du corps du bâtiment à ses détails, vous avancez facilement, si votre grand point de départ est judicieux, surtout s'il est trouvé, réservant au besoin pour l'étude ultérieure bien des détails dont on fait crédit à la composition, pourvu qu'elle présente l'étoffe suffisante, et les cadres les plus propices.

"Le raisonnement, la critique, dont je ne prétends nullement faire abstraction, viendront à leur tour, pour contrôler votre conception, car après avoir imaginé, il faut que vous sachiez être les propres juges de votre imagination." (*Éléments et Théorie de l'Architecture*, by J. Guadet (Paris : Librairie de la Construction Moderne, 1909), Tome i, Livre 2, chap. 2, "Principes Directeurs," p. 101.)

than the qualities of a formal composition in a dead language. But let us imagine the architect to be entrusted with the design of a modern theatre. At once the range of his material is immensely extended. His conception can now be so enriched that it becomes instinct with life. For a theatre is a subject that is related to our experience in an infinite number of ways ; and a vivid apprehension of these relationships can be an integral part of the conception, and must be, if the theatre, as it is externally expressed, is to have for us a significance that is not only direct but intimate. What is true of the conception of a theatre is true also of the conception of all other vital programmes in architecture. Their spiritual content can be and ought to be visualised in the original idea. If it is not, the resultant expression will be no more than an empty shell.

At different times in the history of architecture a different degree of emphasis has been laid upon one or another of the possible elements in the content of the architectonic conception. During the Renaissance the character of the programme emerges as a primary element in the idea. That is plainly evident from the buildings which express the conceptions of the time. A subject's proper place in the hierarchy of architectural programmes was made abundantly clear. Buildings in the main revealed unequivocally not only their particular purpose, but their relative importance in the social fabric of the city and the state. The tendency then exhibited has become even more marked in modern architecture, and our interest and appreciation never fail to be stimulated in consequence.

The architects of the Middle Ages, on the other hand, were chiefly attracted by the constructional possibilities of their programmes, and the prime values of the conceptions which they externalised in stone were often structural. Sometimes their results were distinguished by extraordinary impressiveness, for a great architectural opportunity and a parade of audacious construction may go hand in hand : or rather, to put the case more accurately, there are occasions when to rely upon and to accentuate the display of the structural element in the conception is to extract the most that the programme has to offer.

It is, however, possible to misread this lesson of Mediæval architecture, and there are not wanting to-day theorists who do so. They see construction not as one among many elements in the programme : under all conditions it fills the whole horizon of their vision. All architectonic ideas to them are constructional ideas, and they visualise construction never as the servant of the conception, but always as the conception itself.† Now it cannot at any time be wholly that. It is not so even in the greatest *tours de force* of Gothic building. Always there are other elements present in the subject and ex-

† *Architecture*, by W. R. Lethaby (London : Williams and Norgate), pp. 237-251.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

pressed in the work, elements principally of religious import. And in the great majority of Renaissance and modern programmes construction is called upon simply to give effect to conceptions of which the first and foremost values are those of character, of social significance and of pattern.

Obviously the architect should be fully acquainted with construction, for the understanding of structural principles must after all be a preliminary condition to any practical activity in architecture : moreover, the possibilities of construction themselves influence and in certain respects determine architectonic ideas. Therefore the greater the constructional knowledge of the architect, the richer will be his conceptual resources. But construction is in most cases no more than an instrument of architecture—its means, not its end : and it is not reasonable to elevate it to the perpetual occupation of a dominant place. Still less is it justifiable to pretend that the pursuit of construction in its most detailed aspects will lead to the automatic evolution of an architectural design. Architectonic conceptions are not built up through mechanical processes, nor can they be left to happen fortuitously as a result of such processes.* The conception must in every case precede and dictate the form of the thing built. Constructional motives sometimes dominate in the conception : sometimes they are of secondary importance. But under no conditions is a knowledge of construction sufficient to generate the whole mental substance of architecture. There is a specious plausibility about the assertion that architecture is no more than a grandiloquent and pretentious name for honest building. In the professed interests of common sense the issue is, however, oversimplified when architecture and building are treated as synonymous terms. The word "architecture" has not been invented to give a fictitious and mysterious dignity to something that is really a very elementary matter if only it be analysed in a straightforward manner. Architecture is specifically distinguished from building because, whilst it includes that practical activity, it transcends building in content and in intention.†

In my definition of an architectonic idea I have included form as well as subject-matter. Every architect who analyses his own mental experience will recognise that his conceptions for buildings of any nature have one characteristic in common : they are each unities. That is the test of their reality for him. To be sure that he has a definite conception of a given programme he must apprehend it as a unity. There is no exception to this rule. All architectonic ideas that are authentic, to be-

come realisable, have to exist as complete entities, whole, in our imagination. Such unity is more than a unity of pattern : it is a unity of the idea as well. The idea and its pattern are separable in the case of a true conception only in theory. As they exist in the mind they make one thing, an image so composed that it produces a single dominant impression, an image to which nothing can be added and from which nothing can be subtracted without detriment to its integrity.

XI

The transmission of architectonic ideas is accomplished by expressing them in buildings. To be effective the expression must be in known terms : a language must be used which can be understood. Architecture has at its disposal a number of languages, called styles. None of them are of mushroom growth, none have been immediately created. Nor from the nature of things could they be. People who demand an entirely new style usually do so on one of two grounds—either on the plea that we live in a new world, or else because they consider that recent discoveries in materials and combinations of materials have rendered obsolete the forms used in conjunction with older constructional systems.

Those who put forward the first argument imperfectly grasp the nature of architectural development. In the history of architecture there is no abrupt wiping of the slate and starting again with a system of notation that has no antecedents. Constant modification takes place in the forms of the terms used, in their grammatical structure and inflection ; but the changes that occur are the work of generations and not of individuals ; they are orderly and evolutionary. Even between styles so different as Classic and Gothic or as Gothic and Renaissance obvious connections exist. When one social state succeeds another, it does not wholly blot out all the influences of the preceding one. The architecture which arose in Western Europe on the withdrawal of Græco-Roman civilisation derived its embryonic forms from the basilicæ, the aqueducts and the great vaulted buildings of the Empire. It at first merely tried on a lesser scale to transmute, into small stones and mortar, conceptions which in imperial days had been embodied in structures of concrete, brick and marble. When the Renaissance transformed the world of the Middle Ages, the vital architecture that was produced as a consequence was not Classic : it was Classical—an architecture in which many of the major elements were of antique origin, but which in its character was profoundly affected by Mediæval influences, showing themselves in composition, in roofing, in fenestration and in surface modelling generally. The Renaissance did not obliterate Mediæval civilisation : it gave it a new spirit and a new direction. Whatever was fit to survive the new conditions did

* *Form in Civilisation*, by W. R. Lethaby (London : Oxford University Press, 1922), p. 90.

† For a complete misunderstanding of the relation of construction to architecture vide *The World as Will and Idea*, by A. Schopenhauer, translated by R. B. Haldane and J. Kemp (London : Paul Trench, Trübner and Co., 1891), vol. i, pp. 276–281, and vol. iii, pp. 182–192.

THEORY OF ARCHITECTURE

so ; and how much in architecture was able to survive may to some extent be realised if we compare, say, the Palazzo Riccardi, the Château des Maisons, or St. Paul's Cathedral with any known building of Greek or Roman antiquity. We to-day are the inheritors of the Renaissance tradition and attitude to life—not the direct inheritors—such passages as the Romantic Movement and the Industrial Revolution have intervened between us and it. But we are still in the same line of descent. We have elaborated our inheritance in many directions and profoundly modified it in so doing : we have not outgrown it. Continually and inescapably it is with us, manifesting itself in our judgments and behaviour in every phase of civilised life, so obviously evident that the fact needs no confirmatory illustration in art, letters, science, philosophy, religion or government. The novelty of our world consists not in its being isolated from what has preceded it—for that it is not—but in being more complex. Modern architecture, if it is truly to express our civilisation, must therefore do so in terms that share their past with it.

All that we know of the development of architecture combines to refute the contention that recent discoveries in material make anachronistic the continued use of detail motives which have hitherto been associated with stone, brick or wood. The lithic architecture of ancient Egypt is characterised to the very end by the use of shapes and profiles that were unquestionably derived from mud and reed construction. If, as would now seem probable, the Greek Doric order owed less to wooden prototypes than was once supposed,* the evidence for the timber origin of the forms of the Ionic temples of Asia Minor is increased rather than diminished.† And Roman Imperial architecture, which developed so largely the use of concrete and brick, perpetuated the practice of the Greeks in much of the detailed articulation of its conceptions. For the truth is that the elements of architectural form are not always governed by construction to such an extent that a change in material is instantly echoed by a change in form. The response is often far from being so immediate ; sometimes it is only partial ; sometimes it never takes place at all ; whenever it does occur it is always gradual, an affair of imperceptible modifications. If it were not so, the formal vocabularies of the various languages of architecture would always have been in such a state of flux, so much at the mercy of every shift and change and discovery in materials and construction, that no coherent utterance would have been possible in any of them. The stylistic conventions, Classic, Byzantine, Mediæval, Renaissance, would, as we know them, never have matured. Style and construction should certainly not be conceived as things which can be completely separated in a proper

* *The Foundations of Classic Architecture*, by H. L. Warren (New York : The Macmillan Co., 1919), pp. 175–197.

† *Ibid.*, pp. 270–296.

development of architecture. If they are put in watertight compartments, the result must be prejudicial to the general health of the art. Interaction should naturally take place between them. Were it to be artificially prevented from doing so, architectural design would be cut off from one of the chief sources of its vitality. But we have to remember as well that enduring architecture uses materials for its own ends, and that it has other things to do than to act as a mirror to mechanical science.

Into the question of the precise degrees of relevance which the known styles of architecture may have for the purposes of the modern architect I do not here propose to go. A more or less general agreement seems to have been reached that in the case of secular programmes a development of the Renaissance or neo-Classical manners is most fitting; whilst for ecclesiastical subjects the Mediæval or Byzantine conventions are appropriate. Whatever mode of expression may be selected it is indispensable that the architect should have more than a superficial acquaintance with it. He must thoroughly understand the principles that underlie the methods of composition adopted in it and that govern the handling of its minor forms. By their nature the elements of architecture are more plastic and flexible than those of literature, but they can only be intelligibly handled and disposed on a grammatical basis.‡ The architect must be expert in this because the grammar of style is a fundamental portion of the technique of architecture.

XII

The rest of architectural technique is made up of principles non-grammatical in kind, but not the less directly affecting the expression of architectonic ideas. Their widely different characters, but equal validity, will be exhibited in the following examples. A building may be, and in modern practice frequently is, so designed as to be stable in reality, but not in appearance. That commercial type will serve as an illustration in which a heavy stone façade is supported on concealed stanchions and rises directly above an unbroken horizontal screen of plate glass. When this arrangement is adopted we recognise that the architectonic effect of the work is prejudiced. Why ? Because we are so constituted that we always demand in buildings not merely sufficient actual strength, but the visible appearance of strength—and that to a degree often in excess of what is scientifically necessary.§ The mind in contemplating

‡ For an admirable statement of grammatical principles in design vide *The Things which are Seen*, by A. Trystan Edwards (London : Philip Allan and Co., 1921), pp. 137–219.

§ *The Architecture of Humanism*, by Geoffrey Scott (London : Constable and Co., 1914), pp. 211–213. Cf. also *Éléments et Théorie de l'Architecture*, by J. Guadet (Paris : Librairie de la Construction Moderne), Tome I, Livre 2, p. 114.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

such a building as I have indicated is disturbed by the failure to satisfy a principle, the principle of apparent stability. This principle is extrinsic to the grammar of architectural design ; nevertheless in architecture it exerts a profound influence upon the effect of design. Its observance is, in fact, essential to the successful conveyance of an architectonic intuition.

Again, an architect in expressing his conception of a programme must take into account and must avail himself of the spatial factors of the particular environment in which the work is to be placed. Where the site is bordered by narrow streets and is surrounded by houses closely ranged, he will find that the effective scale of his design can be much smaller than if it were to occupy a position less enclosed. For, as Guadet has pointed out, the relative proximity and dimensions of a containing background exert a powerful influence. A vase, he observes, when placed in a small room will appear large, in a by-street its size will seem to contract, whilst in the midst of an open *place* it will become comparatively insignificant.* The principle implicit in this illustration is that the scale of objects varies in inverse ratio to the cubic volume of the space that contains them.† All architectural compositions and their individual elements should therefore be designed with regard to that principle ; otherwise they will fail of their effect and produce a false impression one way or the other, either by exaggeration or by under-statement.

Instances revealing the force of many other principles could be given. One more will suffice, one that is really implied in what I have already said about the necessity of expression in known terms. The styles of architecture have each their own historical and functional associations ; a complex of ideas is, however unconsciously, connected with each. Exotic styles possess for us a significance that is necessarily remote, but with the meaning of traditional conventions that are not alien to our civilisation it is possible for us to be more or less intimately familiar. The various manners of Greek and Roman Classic, of Byzantine, Gothic and Renaissance architecture evoke mnemonic echoes in the mind, elaborate reflexions of thought and feeling. Their capacity to do this can be used to implement design. The more deeply a given architectural programme has its roots in a comprehensible tradition, so much the more effectively may it be embodied in a manner expressive, not of its ultimate origin—for the statement of that would be an anachronism—but expressive of its general lineage and inheritance. So presented it has an atmosphere and establishes relationships with our experience that enhance and intensify its effect. An architectural work

* *Eléments et Théorie de l'Architecture*, by J. Guadet (Paris : Librairie de la Construction Moderne, 1909), Tome I, Livre II, pp. 143-144.

† For another statement of the principle vide *La Composition Décorative*, by Henri Mayeux (Paris : Librairies-Imprimeries Réunies, 1885), p. 110.

without traditional connections is conceived and judged, as it were, in a vacuum ; whilst one that has such connections, but of a foreign and irrelevant kind, still remains, though to a less degree, isolated and imperfectly understood. We have to recognise that a principle of association or stylistic apposition exists and that it must be conformed to by all architectural works that aim at satisfying something more than our sense of abstract pattern or of utilitarian fitness.

All the principles of architectural technique, including both those of the sort I have been indicating and those which relate to the grammar of design, are contingent, that is to say they are only conditionally true. Many of them, particularly the grammatical ones, are liable to be modified in the course of time. That circumstance does not rob such principles of their force and validity. They hold under given conditions and, so long as those conditions obtain, obedience to the laws controlling design under them is necessary. What the architect, then, has to know are the laws of the grammar of design and of general technique that give real effect to his aims in the age in which he lives. I will content myself with giving a single instance only, referring to a technical law of the non-grammatical type, that will show how the demands of one period may differ from those of another. It is evident from the design of the north portico of the Erechtheion that the Greeks of the fifth century B.C. had come to require from lithic architecture a much slighter assurance of strength than did the Egyptians of the New Empire. So our descendants five hundred years hence may interpret the principle of apparent stability more generously than we find it possible to do to-day. They may experience nothing disagreeable in the spectacle of a great stone-sheathed façade seeming to rest upon plate-glass. The existence of concealed steel or reinforced concrete supports may be present in their minds in a way in which such things cannot be for us, unless they or some substitute for them are visibly indicated for the satisfaction of our eyes.

If all the principles of architectural technique are not constant and immutable, the fact of modification occurring from time to time in many of them does not deprive technique of its reality. At all times there is a body of empiric laws which are valid so long as certain conditions govern appreciation. In the last resort it may not matter how the architect comes to know and obey these laws, whether by intuition or as a result of rational thought, but to produce his effects he must know and obey them.

For that reason alone, the early training of an architect should involve purely formal studies in grammatical and stylistic composition. The elements of architecture as manipulated by the student do not always need to be expressive of any authentic conception in his mind. He has to be drilled in the correct use of technical forms as a gymnastic discipline for its own

THEORY OF ARCHITECTURE

sake. When he really has something to express he will then, as a result of his practice in abstract composition, be able to state it clearly and with precision. Those formal exercises of students that relate to no inner conceptual ideas are not therefore to be despised. They are a means to an end, a necessary part of the education of the architect.

XIII

The whole technical education of the architect must be directed to this one end—to make it possible for him completely to express his conceptions. His buildings must perfectly symbolise and re-present his architectonic ideas. And this brings us to the question of how far and in what way architecture and truth are connected. Ruskin in his *Seven Lamps of Architecture* included truth amongst the seven.* He gave it second place in the curious company of principles which he invented for architecture. Later writers have preferred it to a first position.† Truth itself in architecture they have held to comprise, more or less vaguely, fidelity to nature or to the laws of nature (laws which they have discreetly left undefined), the display of construction and of the actual qualities of the materials used, and, more recently, the expression of purpose.‡ But a theory of architecture which asserts that every building to have architectural merit must primarily exhibit connections with nature, must reveal the whole of its structure and the substance of its fabric, and must proclaim the utilitarian functions it will be called upon to fulfil, such a theory insists on too much and insists on it from a false standpoint. All architectural programmes are not composed of the same ingredients, and the content of the conceptions arising out of them varies indefinitely. There are in different styles countless examples of successful works that cannot be brought within the category of truthful architecture as understood by many of the nineteenth century theorists. Some buildings dispense with any even conventional reference to natural forms.§ The structural skeleton of others is less evident than that of a human being, their surface treatment no key to the material that underlies it; others again neglect to demonstrate the specific practical needs they serve. Nevertheless they are very beau-

* *The Seven Lamps of Architecture*, by John Ruskin (London : George Allen, 1905), pp. 51–124.

† *Essentials in Architecture*, by John Belcher (London : B. T. Batsford, 1907), pp. 11–20.

‡ *How to Judge Architecture*, by Russell Sturgis (London : Macmillan and Co., 1904), p. 32.

§ That they equally fail in fidelity to the laws of nature goes without saying. But I have not thought the fact sufficiently important to be mentioned in my main argument, because the phrase “laws of nature” is simply one of the stock clichés of that evangelical eloquence which Ruskin popularised in artistic criticism and, in the connection in which it is employed, is meaningless.

tiful expressions of architectonic ideas that could only so have been expressed. Because they do not happen to illustrate some general aspect of truth, natural, structural, material or functional, they are not therefore dishonest works. They do illustrate the only kind of veracity that may fitly be demanded of buildings where and whenever erected. They are true to the images they re-present. Falseness in architecture occurs when a given work, that is not merely a technical exercise on paper, expresses no real conception or when it expresses it disingenuously. Truth is found when there has been something to express and the expression has been adequate.

XIV

The complete representation of an architectonic idea includes the expression in external form of the unity of the idea. This rules out of architecture once and for all the possibility of successful design by agglomeration. That method of evolving plans and elevations by adding element to element and fitting them together without regard to the totality of the result is incompatible with the production of unity of effect. For the parts, though collectively they compose the whole, do not precede it in conception. Similarly the unsubordinated activities of a body of craftsmen can never result in a work of architecture. The greatest mediæval cathedrals were certainly not the outcome of that sort of co-operation, much as enthusiasts for the mediæval guild system would like to think they were. Chartres, Rheims, Amiens, Notre Dame, each is the definite statement of a dominant idea, the unity of which is maintained in every part of its structure. Whenever Gothic craftsmen were given a free hand to erect a building according to their own notions and not in pursuance of a preconceived idea, the result of their activities offered in place of unity a host of competing interests.|| These interests, though very intriguing to the lay amateur, are without value to the student of architectural composition. So they must always be. For the accumulation of such interests, so far from creating architecture, destroys all architectural effect, since none of them is adjusted in relation to the others, and there is no proper subordination of the parts to the whole.

In architecture the architect must of necessity be supreme. His mind generates the conception and must control the execution of it. At the same time a merely mechanical rendering of his designs is never to be desired. There is this in common between the work of the architect, the playwright and the musical composer: they are all three dependent on executant aid. If they rightly appreciate their position they exploit that aid to

|| *A History of French Architecture from 1494 to 1661*, by Sir Reginald Blomfield (London : G. Bell and Sons, 1911), pp. 22–39.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the fullest extent. In the conception of a great play, a great symphony or a great building there are potentialities that can only be brought out by the skilful executant : there is suggestively indicated, by the nature of the conception, scope for an individual interpretation that will and should enrich the statement of the fundamental idea. For the successful practice of architecture there must be intelligent collaboration between the mind which conceives and the mind which executes ; but the first must dominate the second.

Between architects who see things in the same way and work sympathetically together collaboration may take place almost on the plane of conception. They may have the same kinds of architectonic images : by means of sketches and drawings they may exchange them and, by pooling their ideas, may produce a joint conception which embodies the best points of their several contributions. Collaboration on this plane, for obvious reasons, is rarely possible between more than two or three minds ; and even then one of those minds usually establishes an ascendancy over the others. In any case, once the stage of conception is passed, the executive collaboration that must then follow is of another sort. It is not necessary that executant craftsmen should be reduced to the level of mechanical slaves, neither, on the other hand, should they be suffered to usurp control. Their abilities must be both stimulated and restrained in order that the integrity of an idea may be preserved and a true and vital unity maintained in the work.

As I have previously observed in stating my general theory of art, an enquiry into the phenomenon of beauty in all and each of its manifestations—natural, artistic, ethical, intellectual, utilitarian, etc.—is the affair of that branch of philosophy known as *Aesthetic*, and is in no sense within the scope of our province. Our business is with the art of architecture : that is what we have proposed to analyse, not the nature of the special kind of beauty which is exhibited as a consequence of the successful practice of the art, still less beauty in general. Those who, in dealing with architecture, have mixed up the study of beauty with the study of the art have involved themselves in inextricable confusion of thought in consequence. Instead of seeing beauty, or rather a special phase of it, as a quality resulting from architectural activity, they have treated it as the essence of the art. They have conceived it to be their first task to examine the constitution of beauty, to determine what it actually is. For they have considered that, if they could establish its real character, they would then have a standard or standards of criticism by applying which it would be possible to test the merits of any work of architecture. The attributes of beauty being discovered to their satisfaction, they have proceeded to judge architectural works according to the degree to which such attributes are apparent in them.

Hence has arisen what is called, in a doctrinaire

sense, educated taste—a faculty trained to appreciate architecture only in so far as the latter accords with pre-conceived ideas of beauty.* These ideas are subject to continual change. At one time beauty in architecture is held to consist in fixed proportional relationships supposed to be derived from the human figure † or simply in the use of forms having a certain geometric basis : ‡ at others, beauty is identified with the expression of a religious influence, § with naturalism, || with efficiency, ¶ or with constructional truth.**

Thus, in this last case, a building whose structure is strictly limited to its practical function and is not displayed as visible form is condemned on the ground that it is false and therefore not beautiful ; and with it more than half of the most beautiful buildings in the world fall to be condemned at the same time. Any of the other hypotheses is equally untenable. The theory, for instance, which ascribes intrinsic and supreme merit to certain shapes and which would therefore make architectural composition a matter of geometric formulae imagines beauty to be inherent in external objects that have a particular volume or profile. These special forms, on this theory, are not to be regarded as being some among the many alternative means of expressing architectonic conceptions, but are to be accepted as universal and absolute ends in themselves. But all our experience teaches us that no special shape produces an effect of beauty under all conditions. The appearance of beauty in architecture arises from certain relationships being established in and through the elements of architectural design. No geometric formula can be applied to those relationships, they cannot be crystallised into a fixed form, because they are infinitely variable. They are dictated by images in which the geometric factor is not constant and dominant and therefore they themselves are not bound as to shape by any prescription drawn from geometry.

* *The Nature and Function of Art, more especially of Architecture*, by Leopold Eidlitz (London : Sampson Low and Co., 1881), pp. 44–50; *Architectural Composition*, by J. Beverley Robinson (New York : D. Van Nostrand Co., 1908), pp. 3–7.

† *Vitruvius : The Ten Books on Architecture*, translated by M. H. Morgan (Harvard University Press, 1914), Book III, pp. 72–75. The idea received further development in the Renaissance by Alberti and others. Cf. also *Essentials in Art*, by Oswald Sirén (London : John Lane, 1920), pp. 79–92.

‡ *Ad Quadratum : A Study of the Geometrical Basis of Classic and Mediaeval Religious Architecture*, by Fredrik Macody Lund (London : B. T. Batsford, 1921). Cf. also Viollet le Duc, Gwilt and Cockerell.

§ *The Seven Lamps of Architecture*, by John Ruskin (London : George Allen), 1905.

|| *Lectures on Art*, by William Morris (London : Macmillan, 1882) ; *The Poetry of Architecture*, by John Ruskin (London : George Allen, 1905).

¶ *Architecture*, by W. R. Lethaby (London : Williams and Norgate), pp. 239–242.

** *The Essentials of Composition as applied to Art*, by J. V. Van Pelt (New York : The Macmillan Co., 1913), pp. 8–13.

THEORY OF ARCHITECTURE

We have to rid ourselves of all these obscurities that are due to confounding the aim of architecture with the achievement of a fictitious standard of beauty. All the difficulties disappear if we are content to see beauty simply as an effect of the right practice of architecture, that is, as a result of an architectural work perfectly symbolising an architectonic idea and so expressing in its unity the unity of the original.

XV

The architectonic idea to be expressed, to be translated into communicable form, has to pass through a process of expansion and elaboration. It is from the architectural work as finally elaborated that those who see it receive the artist's vision. They do so by an inversion of the method pursued by the architect in externalizing that vision. He labours to make his conception clear by developing it, by working it out in all its implications. His public intuitively synthesises and compresses what he has elaborated and so itself experiences his vision in its original intensity. There is no short cut by which the architect and his public can communicate. Unless everything that is in the conception is made apparent beyond all question in the architectural work, the synthetic vision derived from it by those who see it is so much the poorer. Everything in the idea must be exploited to its full capacity in the work or the idea itself will be impaired in transmission.

For this reason, to take a convincing example, Garnier in his Paris Opera House expresses elevationally and with unmistakable emphasis the several elements of the plan—the foyer, the auditorium and the stage. These were, no doubt, sufficiently articulated in his original conception. But he underlines as it were the whole character of the building by his modelling of its parts and by the details with which he enriches it. Every relevant association that could reinforce the main idea is pressed into service. The ornament has more than the general qualities of richness and *bravura* appropriate to the theme. In the motives used there is a wealth of pertinent symbolism. Every decorative adjunct inspired by and traditionally associated with the operatic theatre finds its place in that vast and brilliant work, intensifying its effect and with superb insistence proclaiming it to be what it is—the greatest expression of its subject in Europe. From that very elaborate presentation of the idea of an opera house, a presentation explicit to the smallest detail, converge the rays which, focussing in our own minds, reproduce there the original vision.

I have taken Garnier's masterpiece as my instance, not because the resources exploited by it are commonly in such profusion at the disposal of the architect, but because the building demonstrates that the more fully the whole intention and meaning of a work of architec-

ture is made clear the more decisive will be its effect. All architectural subjects have not so rich a content. The material of many programmes is often of a simpler kind. It is possible to exhibit the main purpose and character of such subjects by little more than the straightforward handling of primary masses, of surfaces and voids. That is always in the last analysis the essential thing; character must first of all be expressed through composition. Significant ornament, however liberally employed, will not of itself be sufficient to compensate for a fundamental obscurity in design. It becomes, indeed, an irritation and an offence when it is relied on overmuch. But as an auxiliary means judiciously used to accentuate that which is already soundly formed it is invaluable.

XVI

Part of the impressions which people receive from contemplating buildings may, albeit very indirectly, be related to their physical experience. In consequence, a theory has been developed that would give an anthropomorphic basis to our appreciation of architecture and that would see therein the whole explanation of the nature and appeal of architecture. Mr. Geoffrey Scott, in the constructive portion of his brilliantly destructive work, *The Architecture of Humanism*,* applies Lipps's *Raumaesthetik*† to architectural design, and would have us believe that the aim of the architect is to express in external form physical sensations, such as repose and movement, that we have found satisfactory in our own bodies.‡ Certain functions of our bodies are to be regarded as the substance of architectural design, as the things that have to be translated into stone and brick, concrete and steel. It is physical memory, Mr. Scott asserts, that supplies the material upon which the artist's creative ability works, and it is to the responses of physical memory in other people that he appeals through his designs. But granted that we do, however little or unconsciously, "transcribe ourselves into terms of architecture," there is in this doctrine a confusion between the end of architecture and its means. No architect when faced with the problem of designing a house, a club, a bank or any other subject proceeds to imagine physical states appropriate to the occasion and to take *them* as his theme. The practical and spiritual elements of the programme form the image that he has to express, and that image is a mental one, in the complex structure of which there is little that has to do with physical memory. Nevertheless the idea of empathy in architecture is not wholly fallacious.§ Architectual

* Constable and Co., London, 1914.

† *Raumaesthetik* (Leipzig, 1897).

‡ *The Architecture of Humanism*, by Geoffrey Scott, p. 213.

§ *The Beautiful : An Introduction to Psychological Aesthetics*, by Vernon Lee (Cambridge University Press, 1913), pp. 61-69.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

works do, little though we may sometimes realise it, react favourably or unfavourably upon us in a physiological way. What the architect really does is to observe the limitations that are set on our enjoyment of architecture by this fact and actually to make use of it to the advantage of his work. Of how this may be done I have already given an illustration of a negative kind in connection with the principle of apparent stability. The appearance of topheaviness in a building, even when we know that it is structurally sound, is partly insupportable because we have ourselves found the physical sensation of bearing an excessive weight unpleasant. But there is more in architecture than the avoidance of these violations of our physical sense of fitness, and more than the positive and active satisfaction of that sense. Our whole mind, our intellect and imagination originate the substance of architecture, and they, not just our physical memories, are the final judges of it.

XVII

At the beginning of this essay I set myself the task of formulating a theory which would ultimately endeavour to show what architecture was, what was its function and what were its means ; and I have now traced the appointed course of my argument to its conclusion. In the view I have put forward architecture is the art of expressing in material form, and so communicating, conceptions or ideas that are not expressible in any other medium or manner. Much of the substance of the ideas is drawn from a reservoir that is tapped by painting and sculpture and even by literature : but it is the way in which that substance is seen in the architectonic vision and the convention through which the vision is expressed that make architecture a separate and distinct art. Four things will determine for the architect whether any given intuition which he thinks himself to possess is a proper one to be exter-

nalised. First, he must be assured that it really is a complete idea, not merely the hint of a conception, but a conception existing in his mind as an absolute unity. Secondly, he must satisfy himself that the content of his image comprises, in right relationship, the elements that are necessary and appropriate to his programme. Thirdly, the total character of the subject-matter of his idea must be sufficiently rich in interest to justify its being stated in a work of architecture. Fourthly, his conception must be one that can be expressed within the limitations that condition his particular art. It is here that a knowledge of technical principles is of most value, for such knowledge solves the question of what is possible and what impossible in design. If the architect will sedulously occupy himself in seeing that his work in any specific instance faithfully and fully re-presents his conception, truth and beauty may safely be left to look after themselves. The purpose of the architect is to make his audience see what he has seen. To this end he must at all costs be explicit ; for those who would appreciate his vision can only capture it when it is wholly released.

In so restricted a compass I cannot pretend to have done more than indicate in the barest outline the substance of my thesis. But that thesis does not present itself as an elaborated philosophy of architecture : it is simply an introduction. Its aim has been to offer a fresh path of approach to the subject and to suggest a new treatment of it. Architecture affords and will continue to afford inexhaustible data for the development of theories ; and I do not imagine that the doctrine here propounded is without lacunæ or does not contain defective deductions which will be revealed under subsequent criticism. I can only claim for it that it attempts to relate architectural theory to a general theory of art in the current of modern thought, and in so doing to advance the analysis of architecture one step further than it has yet been taken.



Reviews

THE LITERARY HISTORY OF THE ADELPHI AND ITS NEIGHBOURHOOD. By Austin Brereton. [T. Fisher Unwin.] 10s. 6d. net. Octavo, 294 pages with index; 27 illustrations, of which one is a site plan.

This interesting book has been re-issued at an appropriate time. The most callous destroyer of old buildings must be struck, if he can be induced to read this book, by the extraordinary interest of the Adelphi. It is like an epitome of the second half of the eighteenth century. The first and second editions of the book are dated 1907 and 1908, and the only regret about the present re-issue is that it has, obviously for economy's sake, been reprinted as it stood at those dates. The late Mr. Henry Wheatley's valuable pamphlet on the *Adelphi and its Site* is naturally the basis of all accounts of the Adelphi. He explored the newspapers of the day when it was built and collected a mass of information as to the actual circumstances of the undertaking. As regards the Adams themselves, however, much more is now known, and pages 91-99 of the book could be revised, if not rewritten. They contain, for instance, such an ancient blunder as that of the editor of the *Fine Arts Journal*, who published James Adam's Travel Diary under Robert's name, and so confused all the dates and facts of Robert Adam's travels in Italy and Dalmatia. Moreover, the opinions quoted on Adam's architectural work sound very out of date to-day. The account that follows of the Royal Society of Arts is also now out of date. The size of the Great Room, rashly given as 44 by 60 by 48, is mistaken; it is 42 by 36 by 30 high, measured to the flat of the coved ceiling. Points of this character, however, would hardly need to be noticed except in a review in a technical journal. The illustrations of the book are mainly from Malton's fine aquatints of the Adelphi given in his well-known book, while others are described as belonging to the Gardner Collection, Hollar's views, etc.

There is an interesting account of Northumberland House, so unnecessarily destroyed in 1874. The reproduction of a water-colour drawing by H. Maund of the magnificent Adam drawing-room is particularly valuable as a key to the original drawings in the Sir John Soane Collection.

The account given of the Exchange of 1608, which occupied the Strand frontage, is particularly interesting. There does not appear to be satisfactory evidence that Coutts Bank, which followed, was the work of the Adams, although it has always seemed, from personal connections, that it would have been so. We do know that the Adams wanted the Strand frontage, but could not get it.

There is a tantalising quotation from a rare pamphlet by the Adams describing the Adelphi at the time of the Lottery. It should have been given in full in the Appendix, as there does not seem to be a copy in any public library.

It is a most unfortunate thing that, surely in "pure ignorance," as Dr. Johnson puts it, the authorities should have suppressed James and William Streets. Surely it might have occurred to some one that *James Adam Street* and *William Adam Street* would have removed any fear of mistaken identity. London street names are far too historical and valuable to be submerged in a passion for uniformity. In view of our debt to William Adam in the matter of the preservation of the Adam drawings it is particularly hard that his share in the Adelphi should have been suppressed in this way. James, of course, was second only to Robert throughout the enterprise, and deserved his recognition.

It is to be hoped that the publishers will be encouraged further to enlarge this very readable and interesting account of one of the most interesting patches of the late eighteenth century London that the destructiveness of the last hundred years has left us.

It is difficult to understand how the destruction of the Adelphi can be contemplated. The houses are always full and in demand, and if the freeholders of Mansfield Street can preserve the Adam houses left to us, surely the same can be done in the case of the Adelphi, which is far richer in personal associations with the great men of the last half of the eighteenth century, as this book so well shows.

A. T. BOLTON [F.]

ARCHITECTURAL DRAWING. By Wooster Bard Field, with an introduction by Thomas E. French. [McGraw-Hill Book Co., Inc., New York and London.] £1 1s.

The sufficiently formidable qualifications of an American architectural "draftsman" are in this work stated as follows:—

1. He must be thoroughly familiar with the principles of Orthographic Projection, including Reflected Views and intersections.
2. He must know the architectural symbols and the methods of representing all forms of construction.
3. He must be acquainted with the History of Architecture, and have a thorough working knowledge of the Architectural Orders.
4. He must know the principles of pure and applied design.
5. He must know materials, their strengths, limitations and characteristics.
6. He must be familiar with lettering.
7. He should have a working knowledge of Perspective, Shades and Shadows, and Rendering.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Then, "with added experience and opportunity he may become an architect."

The purpose of the book, then, is to give such guidance to the student working alone, or with an instructor, as will enable him to become an architectural draughtsman. Whether he goes further and becomes an architect depends apparently upon himself.

There is here something of everything, and, naturally enough in a book of only 160 pages, not a great deal of anything. But, of its kind, the book is very well done and should be interesting to English students.

Of fine drawing, that something more than the mere transcription of facts to scale, it has little to say.

There are many points of American practice to be noted in the detailed constructional plates, as, for instance, the use of a "flashing block" of tile or brick with a prepared groove for the tucking-in of asphalt or lead.

It is interesting, too, to see that the architectural student in Ohio makes kitchen designing a sport with a score card and a par score of 100, which it is his ambition to achieve.

The marker searches for dropped points and marks them on the card. If any two of the stove, table, sink, or pantry are farther apart than 12 feet, half a point is "cut" for each foot over twelve; should there be more than four doors in the kitchen a point is lost for each door; even if the thermometer is left out a point goes; and at the finish, when the player is perhaps all square, having regard to his architectural handicap, his opponent may discover that he has no hot water in the kitchen, and cut 20 points from his total with one fell blow.

It would appear that there is no need whatever for the American architectural student to have time off for golf.

W. H. ANSELL [F.]

BUILDING MATERIALS. By A. P. Laurie, M.A., D.Sc. [Oliver and Boyd.] 1922.

This book is intended to be an introduction to the study of building materials, and the author, as a scientist, treats the subject in a scientific manner, at the same time confining himself to the elementary aspects of a very large field. In its 180 pages will be found useful descriptions of the materials commonly required in construction and some account of their chemical and physical properties. A short geological introduction upon building stones is followed by an account of their weathering properties. Limes, cement and concrete are allotted two chapters, followed by two on bricks and tiles. The metals are dismissed in ten pages, and a short account of timber brings us to the final chapter on paints and other covering materials. In so small a volume any adequate discussion of recent developments and research is naturally difficult: nevertheless the author has endeavoured to include references to the directions in which investigations are tending.

The student looking for a small and readily mastered book on materials will find in this volume much of what he requires, while if he has been adequately trained in natural science at school he will see in these pages how the principles of science may be applied to practical problems.

ALAN MUNBY [F.]

The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT ACQUISITIONS.

[These Notes are published without prejudice to a further and more detailed criticism.]

ITALIAN RENAISSANCE ARCHITECTURE : A SHORT HISTORICAL AND DESCRIPTIVE ACCOUNT. By Georges Gromort, translated from the French by George F. Waters. 1922. £7s. 6d. [Paris : A. Vincent.]

This is an English edition of a book already widely appreciated in this country. It is avowedly based on the fourth edition of W. J. Anderson's book on the same subject, which it admirably supplements. An English edition would probably not have been produced but for the increasing difficulty in obtaining Anderson. The illustrations are excellent, but the text inevitably suffers through translation by one who is not an architect.

A. S.

DOCUMENTS DE STYLE EMPIRE. Le Luminaire. By E. Hessling. Fo., Paris. £2 2s.

DOCUMENTS DE STYLE EMPIRE. Orfèverie et Horlogerie. By E. Hessling. Fo., Paris. £1 4s. [A. Guérinet, 140, Faubourg St. Martin, Paris.]

In these two volumes Mr. E. Hessling has brought together a really splendid and most useful collection of illustrations of Empire design as applied on the one hand to lamps, candelabra and candlesticks, and on the other to clocks and silversmith's work generally. At no period was ornamental design more under the dominance of architectural ideas, and these examples will therefore be found useful by architects in many branches of their work. Other than architectural motives are also represented, and these by no means the least successful.

W. H. W.

AUFNAHMEN MITTELALTERLICHER WAND- UND DECKENMALEREIEN IN DEUTSCHLAND, unter mitwirkung von H. Kolb und O. Vorlaender. Herausgegeben von Richard Borrmann. 2 vols. fo. Berlin. £4 4s. [Berlin : Ernst Wasmuth.]

These two volumes are an interesting collection of large-scale studies, printed in colour, of mediæval decorative work. They contain many valuable suggestions of the principles, as well as methods, of design observable in Gothic craftsmanship. The treatment of the structural members of a building is shown in many ways, as well as the filling of restricted spaces and covering of large areas, with schemes of meaning colour.

H. C. C.

ENGLISH HOMES : Period III.—Vol. I. Late Tudor and Early Stuart, 1558–1649. By H. Avray Tipping, M.A., F.S.A. Fo. Lond., 1922. £3 3s. [Country Life, Tavistock Street, Covent Garden]

This volume continues the fine series illustrating the stately homes of England, of which there appears to be an inexhaustible supply. The production is worthy of the high standard now expected from *Country Life*. The numerous examples include Bolsover Castle, Chequers Court, Kildwick Hall, Kirby Hall, Montacute House, Plas Mawr, Quenby Hall, Shipton Hall and Wollaton Hall.

M. S. B.

CORRESPONDENCE

Correspondence

CHARTER, COUNCIL, OR ELECTION: WHICH?

To the Editor, JOURNAL R.I.B.A.,—

SIR,—It is pleasant to see Mr. H. C. Corlette's letter in support of the safeguarding aspects of the Institute's Charter, and to hear from him that "members can, if they will, defend their rights in spite of election successes, in a corporate body which is not a political 'machine.'" He quite suitably points out that a resolution of the Institute is an important thing, and instances that of March 1920, on the registration question, as an example. This decision was certainly important in that it led up to the acceptance or confirmation in 1921, by the then Institute Council, of a resolution passed by the so-called Unification Committee purposing to admit all architects of the United Kingdom into the Institute. It is clear that the principle involved in this resolution was of the most vital concern to Institute members, while the approval of the Institute Council alone, on such a question, would be, as Mr. Corlette says, in no way binding upon them. I am unaware of the general body of the Institute having ever had this proposal placed before them for decision, but no doubt Mr. Corlette—who has been intimately associated with the whole matter—can tell us if it is so, or, if otherwise, what steps he may have taken unsuccessfully to secure adoption of a procedure he so rightly considers essential. For unless such approval was first obtained, the proceedings of the Unification Committee were mere waste of time. But there is another aspect of this question which is also of some importance. Are we for ever to go on pretending that even the Institute is unanimous upon either the principle or the expediency of a registration policy? It has never been shown to be so, and we know perfectly well that it is not. In such circumstances one would think that mere prudence would suggest that the aims of those who desire a register are not so likely to be eventually secured if they proceed on lines which must inevitably alienate those who hold other views, and who might, in different circumstances, be prepared either actively or passively to assist them. And Mr. Corlette, and others who think with him, no doubt appreciate that resolutions may be framed that are inadmissible under our Charter, and of very doubtful relation to the purpose for which the Institute was founded.

In conclusion, may I point out that, in the opinion of many, the recently discussed draft Bill of the present Council had a distinct merit in following the medical precedent of non-interference with the existing professional bodies. If we really seek some approach to unanimity in this matter, that method of procedure has advantages above any other. In support of this view, a recent writer* may be quoted who puts the matter admirably when he says that "We are architects first

and members of architectural bodies afterwards, and if we can get away from the idea that bargaining for terms of registration and membership between professional bodies is a necessary precedent, we shall have gone a long way to securing that unity of thought and action which is an essential preliminary to the achievement of statutory registration."

I suggest that, if we are desirous of a real, as opposed to a false, unity on this involved and contentious question, procedure upon such lines might be best calculated to secure it.—Faithfully yours,

FREDK. R. HIORNIS [F.]

REGISTRATION AND THE YORK AND EAST YORKSHIRE SOCIETY.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Will you allow me to make a correction in the report of my remarks upon the Registration Bill at the meeting of 29 January? I did not say that the whole of the York and East Yorkshire Society had placed itself in my hands as regards its vote, but that the Hull section of my Society had done so. I felt it my duty, as representing this Allied Society, to voice its views and to vote according to its decision, but now that the matter is over I may add that my own personal feeling was in favour of some form of unification prior to an attempt at registration, always provided that the Council was prepared to come out into the open and to say exactly what unification meant. This course would have been best adopted by allowing the Unification and Registration Committee to have completed and presented its report. Having regard to the date at which the Institute committed itself to a registration policy, progress cannot be regarded as very creditable, and it seems worth while considering whether we should not be content to make a start with some form of voluntary registration which, when well consolidated, might lead to statutory registration. Yours faithfully,

ALAN E. MUNBY [F.],
President, York and East Yorks Allied Society.

MEMBERSHIP OF ALLIED SOCIETIES.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Referring to statements which have obtained currency with regard to the mixed membership of Allied Societies, may I draw your attention to the fact that in the case of my Society 83½ per cent. of its members are either Fellows, Associates or Licentiates of the R.I.B.A., every member of the council being a Fellow or Associate. The balance of 16½ per cent. is composed not of craftsmen or quantity surveyors, but of architects and architects' assistants, who are either members of other societies, men preparing for entrance to the R.I.B.A. by the front door, or older men who are not at all likely to take advantage of any back entrance, as was suggested by Mr. Perks at the meeting on 29 January.—Yours faithfully, W. J. STENNER [A.],

Hon. Secretary, Bristol Society of Architects.

* "Observer," in the *Architects' Journal*, p. 285, 14 February 1923.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

LIGHTING OF PICTURE GALLERIES : A CORRECTION.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I regret that in my paper on "The Lighting of Picture Galleries and Museums" I was led by a published statement to say that the Mappin Art Gallery was copied from the Ryks Museum at Amsterdam. This, I find, is not so, for although both galleries, as can be seen by the illustrations, have been constructed on the same principles, they were created independently.—Yours faithfully,

S. HURST SEAGER [F.]

EXHIBITION OF BRITISH ARCHITECTURE IN AMERICA.

The Exhibition of Contemporary British Architecture, which was sent over to New York on the invitation of the Architectural League of that city, was opened on 26 January. A court was constructed in what is known as the Vanderbilt Gallery of the Fine Arts Building and given up entirely to the English work. The Press comments upon the Exhibition have been very appreciative.

In connection with the Exhibition the League have printed an illustrated catalogue containing the Introduction which was written by Mr. Waterhouse for the exhibition at the Institute, and which was also reprinted in the JOURNAL. The subjects chosen for illustration are from the exhibits of the President (Mr. Paul Waterhouse), Sir John Burnet (British Museum Extension), Herbert Baker, A.R.A. (Union Buildings, Pretoria), Mr. Ralph Knott (London County Hall), Mr. F. M. Simpson (additions to University College), and various domestic buildings by Sir Edwin Lutyens, Mr. M. H. Baillie Scott, Mr. Stanley Hamp, Mr. Clough Williams-Ellis, and the Church of Christian Science, Curzon Street, by Messrs. H. V. Lanchester and Rickards.

MR. HERBERT BAKER, A.R.A.

Mr. Herbert Baker, the recently elected Associate of the Royal Academy, was awarded the Ashpitel Prize in 1889 (a prize awarded to the student of the Institute who distinguishes himself most highly in any one of the Final Examinations during the year) : he was elected an Associate in 1890, and a Fellow in 1900.

After serving his articles with Mr. Arthur Baker, Mr. Baker acted as an assistant to Sir Ernest George and Peto, and also attended the Royal Academy schools. He went to South Africa in 1892, where he built Groote Schuur and other buildings for the late Mr. Cecil Rhodes. After the South African War he commenced practice in the Transvaal, and carried out work generally in all parts of South Africa. He built private houses for Sir Lionel Phillips, Bart., Sir George

Farrar, Bart., Sir A. Bailey, and many others. He was the architect for the new Administrative Capital Buildings for the South African Government at Pretoria, the Kimberley Siege Memorial, and the Rhodes Memorial on Table Mountain. He was also the architect of three cathedrals—at Capetown, at Pretoria, and at Salisbury, Rhodesia.

Mr. Baker's work in collaboration with Sir Edwin Lutyens in the building of the new capital of Delhi is well known. His appointment as the architect for the rebuilding of the Bank of England was announced recently.

THE LONDON COUNTY COUNCIL AND POST-WAR HOUSING.

Mr. G. Topham Forrest [F.] gave one of the Chadwick Public Lectures, in the gallery of the Institute, on Thursday, 8 February 1923.

In the course of his lecture, Mr. Topham Forrest outlined the housing programme of the London County Council, as formulated in June, 1919. The Council decided to provide within a period of five years from January 1920 not fewer than 29,000 new dwellings, exclusive of those to be erected upon the cleared sites of insanitary areas. The estimated total capital expenditure involved in the acquisition and laying out of estates and the erection of the cottages was approximately £24,000,000. About 2,000 of the new houses were to be provided on the partially developed estates at Old Oak, Norbury, and White Hart Lane, and the remainder on new estates at Roehampton, Bellingham and Becontree.

Great difficulties, particularly in the early stages of the work, were experienced owing to the shortage of materials and labour, and also to the lack of transport. As regards materials, it was estimated that during the five years the huge total of 700,000,000 bricks and 300,000 tons of cement, for example, would be required. Or, to take all classes of materials, it was estimated that the full programme would necessitate the provision of 1,000,000 tons per annum—that is, over 4,000 tons per day. It was found that such large quantities of materials could not all be obtained from the usual sources, and consequently steps had to be taken to purchase materials not only in England, but abroad. In the few cases where it was impossible to obtain the same class of materials from different sources, great care had to be exercised to buy in the cheapest market : the houses were costing an enormous amount of money as compared with pre-war days, and it was essential to make every endeavour to reduce the cost to a minimum. With regard to the shortage of labour, it was found almost impossible to obtain the assistance of skilled mechanics, and as one result of this the Government passed a special Act of Parliament forbidding building work of less importance than housing, unless specially permitted by the local authority. It was so difficult to get bricklayers that special forms of concrete construction had to be employed wherever the necessary materials could be found on the site. A third difficulty was in regard to transport, and to meet the special needs of the Becontree area a jetty had to be constructed on the river and connected up with the estate by means of a new railway. All this made it clear that the only

ALLIED SOCIETIES

possible hope of completing the programme within the specified time lay in the employment of one master contractor on each of the large estates. In the smaller estates which the Council owned and were already developing it was evident that one controlling influence was necessary for the carrying out of the work.

The first of the new post-war houses was finished on 7 February 1920, but since that date nearly 6,800 cottages and tenements (in block dwellings), or an average of more than seven per working day, have been completed. In this way new accommodation has been provided for 52,000 persons, which is more than the total provision made by the Council in the fifteen years preceding the war. The number of cottages erected in the three years is nearly twice the number provided by the Council during the whole of its operations in the previous twenty-seven years. With the completion of the work actually in progress, accommodation will be provided in all for about 66,000 persons. If the Ministry of Health should decide that the Council is to carry out the whole of the original programme, Mr. Forrest sees no outstanding difficulty in completing it within a very short period.

Allied Societies

THE NORTHERN ARCHITECTURAL ASSOCIATION.

The Annual Dinner of the Northern Architectural Association, which was held at Newcastle-upon-Tyne, on the 7th February, was attended by a large gathering of members and guests.

Mr. T. R. Milburn (President of the Northern Association) presided, and was supported by the President of the Institute (Mr. Paul Waterhouse), Mr. Ian MacAlister (Secretary of the Institute), Mr. J. M. Clark (president of the Surveyors' Institution), Mr. Stephen Easten, O.B.E., Mr. R. F. Hindmarsh (president of the Institution of Civil Engineers, Newcastle), Professor R. G. Hatton, Mr. W. J. Steele (City Engineer), Mr. W. T. Jones, F.S.A. (vice-president of the Northern Architectural Association), Mr. W. E. Stairmand (president of the Northern Counties Federation, Building Trade Employers), Mr. J. P. Allen (president of the Northern Quantity Surveyors' Association), Colonel J. J. Gillespie, Mr. A. E. Killick (Superintendent Valuer of the Northern District), Mr. Henry Bell (president of the Sunderland Building Trade Employers' Association), Mr. R. Burns Dick (past president of the Northern Architectural Association), Mr. William Hall (president of the Newcastle and Tyne District Building Trade Employers' Association), Mr. W. H. Hope (secretary of the Northern Counties Federation Building Trade Employers' Association), Mr. A. Milburn, Mr. C. E. Baldwin, Mr. W. McCulloch, Mr. G. H. Gray (assistant hon. secretary of the Northern Architectural Association), and Alderman A. B. Plummer (senior past president).

Mr. J. M. Clark (President of the Surveyors' Institution), in proposing the toast of the "Royal Institute of British Architects and Allied Societies," said that there were few towns which had finer architectural features than Newcastle, thanks to the local architects. The future of every town, he said, depended a great deal upon its archi-

tecture, and, referring to the important part which it had played in Newcastle, he said that if it had not been for the genius of Mr. Dobson, they would probably not have had such fine streets or such a fine city. His ambition had been worthily upheld by the architects who had followed him.

Mr. Paul Waterhouse, in replying to the toast, described architecture as civilisation with a capital C, and said that when they spoke of it they were really speaking of the course of human progress. "Just as a healthy mind grows in a healthy body," he said, "so I believe that the happy citizen grows in the beautiful city, and it is our pleasant business to provide the beauty which the cities want."

Alderman Plummer and Mr. Ian MacAlister also responded.

Proposing the toast of "The Building Industry," Mr. Burns Dick said there had never been a greater building era than the present, and some cities were so progressive that they even had a decent Town Hall! The speaker caused amusement by saying that, if all the bricks used in the housing schemes in Britain were put one upon another they would reach to the planet Neptune—and then leave enough to build a new Town Hall!

Mr. Stephen Easten, responding, said he might be expected to say something of the crisis that may arise in the building industry in the immediate future. He asked them to realise that those on the employers' side who were dealing with the subject fully recognised their responsibility. It is as much in the interests of the operatives as the employers," added Mr. Easten, "that we should have a proportionate reduction in wages of 20 per cent. If we keep our wages up we are penalising the workers, who cannot pay the prices asked for houses. I trust, however, that we will be able to avoid a conflict."

BIRMINGHAM ARCHITECTURAL ASSOCIATION ANNUAL DINNER.

The Annual Dinner was held at the Midland Hotel on 2 February 1923, when sixty members and friends were present. Mr. Paul Waterhouse, P.R.I.B.A., was the guest of the evening, and amongst the other guests were the Lord Mayor of Birmingham (Alderman David Davis), the Principal of the University, the Chairman of the Public Works Committee, the City Engineer, and the Presidents of six of the Allied Societies.

The chair was taken by Mr. Rupert Savage [F.], who, in proposing the toast of the R.I.B.A., alluded to the great amount of time and the very hard work which Mr. Waterhouse put in as President, more particularly in his efforts to keep in touch with the Allied Societies.

Mr. Waterhouse, in reply, referred to the question of registration, and said that with regard to unification they all thought that it was a good thing in itself, and one worth having, even if nothing further was achieved, because it was only a reasonable condition precedent to registration, which they were all after. If there was a party in the Institute that thought that mere production of a draft Bill was in itself an achievement, he thought that party was mistaken. The Institute, he added, was marching forward. It was a big concern—too big, in fact, to be destroyed by a family quarrel. It had accomplished excellent work on behalf of the profession, and it was a pleasure to see men

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

who lived outside London taking such a prominent part in its activities.

The toast to the City of Birmingham was proposed by Mr. H. T. Buckland [F.]. He referred to certain articles on the Architecture of London Streets which Mr. G. Bernard Shaw had contributed to a certain journal, and essayed an attempt to imagine what would be the same gentleman's comments on Birmingham.

The Lord Mayor, in replying to the toast, remarked that, happily, Mr. G. Bernard Shaw was not a citizen of Birmingham, and that the city was alive and progressing. At the same time, he was inclined to ask if there was sufficient fellowship between the citizens as a whole and their governing authorities. Would it not be better if the citizens recognised that there was a partnership between the Council of the city and themselves? He said that members of the Association were in a position to make suggestions which might benefit the city as a whole. There was one subject upon which they could help, namely, housing. They were all in agreement as to the terrible condition which prevailed in Birmingham at the present time. The State-aided scheme had come to an end. It had been, in his opinion, a distinct failure. The scheme had not provided the number of houses required, and they were now told it was impossible to provide houses for the working classes for which an economic rent could be obtained. It had been suggested to him that as the working classes were unable to pay what would be an economic rent as well as the rates, it would be possible to erect houses at a rental within their means provided they were not required to pay rates. He believed that the suggestion would to a large extent provide a solution of the problem. If no houses were built, the Corporation could receive no rates, but if the houses were built and no rates were paid, the Corporation would not be any the worse off. Might it not be possible for them to forgo the rates for a period of five years, to accept half rates for a further five, and then to levy full rates. Under these conditions, houses could be let at an economic rent, and he thought it was a suggestion which deserved the closest consideration.

Councillor S. T. Talbot proposed the toast of "The Association," to which Mr. J. A. Crouch responded.

Mr. C. Grant Robertson, M.A., C.V.O., Principal of Birmingham University, in responding to the toast of "The Visitors," said that the University which he represented was a great one, but with one grave deficiency which they must endeavour to remedy. There was at present practically no recognition of the fine arts—a great loss to the city and to the University, and he looked forward to the time when this would be remedied with more than one professorship. The University was noted for its great school of engineering, but such a school was incomplete if it did not include the study of architecture and the fine arts generally—a study which could only be neglected by either the city or the University at great peril to themselves. If Liverpool could successfully establish its great School of Architecture, it could be done by Birmingham, but he would lay down one condition—namely, that it must be done with the help of the Birmingham Association and of the Royal Institute. The University was a civic one, and should therefore promote and help them towards the right sense of citizenship and the studies which this involves.

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS.

At the Annual Dinner of this Society, the Lord Mayor of Sheffield, Alderman W. C. Fenton [F.], a member of the Society, was entertained by his fellow members. Mr. Paul Waterhouse, who had also accepted an invitation to the dinner, made a presentation on behalf of the Society to Mr. J. R. Wigfull [A.], in appreciation of his services as Secretary for many years. The Lord Mayor proposed the toast of the Royal Institute.

Mr. F. E. P. Edwards, the Sheffield City Architect, in proposing "The Arts and Crafts of Architecture," said they, as architects, frankly acknowledged the debt they owed to the skilled craftsmen who gave effect and being to the designs which would otherwise remain merely castles in the air. Among the men engaged in the building industries and the ranks of their skilled workmen were many whom they valued as fellow workers in the honest fulfilment of their aims and objects. With the spread of technical education, it was not too much to hope that the era of the artist craftsman might be revived, and material conditions improved consistent with economic limitations.

THE LIGHTING OF PICTURE GALLERIES AND MUSEUMS.

R.I.B.A. MEETING TO DISCUSS MR. HURST SEAGER'S PAPER ON 5 MARCH.

In *L'Architecture* of 10 November was published a translation by M. Léonard (of the Secretariat of the Louvre) of Mr. Hurst Seager's paper which appeared in our JOURNAL of 23 November 1912, and a brief account of a demonstration which he gave at the Louvre at the invitation of the Directorate to the directors and architects associated with the French Government museums and art galleries. A number of eminent artists were also present.

Following this demonstration, arrangements were made by M. Léonard for improving the lighting of two side-lighted rooms at the Louvre to receive the pastels of St. Quentin de la Tour. The Parisian journals are emphatic in their praise of the system of lighting adopted, and state that the pastels have revealed fresh beauties to those who had previously seen them in the ill-lighted rooms.

The result of this work is to be seen in *L'Illustration* of 9 December. These illustrations will be shown by Mr. Seager at the demonstration which he will give at the Institute on 5 March. At this meeting a number of lantern slides will be shown together with the large collection of photographs Mr. Seager has taken in the chief European galleries.

R.I.B.A. STREET ARCHITECTURE MEDAL.

Members and Licentiates are informed that they need not submit a photograph and elevation of a building which they wish to nominate for the R.I.B.A. Street Architecture Medal, except in cases where they wish to nominate a building erected to their own designs. The Secretary R.I.B.A. has arranged to inform architects of buildings for which nominations have been received, and will invite them to send photographs and elevations for the Jury's consideration.

WREN MEMORIAL VOLUME

BOARD OF ARCHITECTURAL EDUCATION. INTERNATIONAL CONGRESS ON ARCHITECTURAL EDUCATION

The Council of the Royal Institute of British Architects have decided to hold an International Congress on Architectural Education in London in the autumn of 1924.

The Congress will consist of special meetings for the purpose of considering the history, position and prospects of architectural education with special reference to the following points :—

The revision of the methods and system of obtaining professional qualifications.

The sources of study. The use of travel.

Prizes and awards of honour.

Preliminary studies.

Detailed subjects. Draughtsmanship. Study of history. Practical handwork. Professional journals. Contact with works.

Examinations. Standards. Relation to practice. Paid examiners.

Promotion of post-graduate studies. Relation to preliminary and general education.

These meetings will be held for formal and informal discussion. Arrangements will also be made for : social intercourse ; visits to schools, museums, places of interest ; a reception ; an exhibition.

The subject of the Congress, important at all times to architects, is more than ever important at the present day in view of the vital changes which are being introduced into British architectural education by the schools. It is hoped that a national and international exchange of ideas will lead to valuable future developments.

The Organising Committee of the Board of Architectural Education will be glad to receive and consider suggestions for the greater success of the Congress, which should be sent to the Secretary of the Board of Architectural Education, 9, Conduit Street, W.1

WREN MEMORIAL VOLUME.

The Wren Memorial Volume is now in the press, and it is expected that subscribers will receive their copies early in March. The full list of contributors is as follows :

1. Introduction by Sir Aston Webb, K.C.V.O., President of the Royal Academy.
2. Sir Christopher Wren from the personal side. J. Alfred Gotch, F.R.I.B.A., F.S.A.
3. Sir Christopher Wren's Parish Churches. Arthur Keen, F.R.I.B.A.
4. The Design of St. Paul's Cathedral. Professor Beresford Pite, Hon. M.A. Cantab., F.R.I.B.A.
5. Some Recent Investigations at St. Paul's. Mervyn E. Macartney, F.R.I.B.A., F.S.A.
6. St. Paul's Cathedral. Observations on Wren's System of Buttresses for the Dome Piers. Somers Clarke, F.S.A.
7. The Crafts at St. Paul's. Laurence Turner, F.S.A., Past Master, Art Workers' Guild, and W. Henry Ward, M.A., F.R.I.B.A., F.S.A.
8. Sir Christopher Wren's Public Buildings. Professor A. E. Richardson, F.R.I.B.A.
9. Sir Christopher Wren and his Plan for London. Professor S. D. Adshead, M.A.
10. Foreign Influences on the Architecture of Sir Christopher Wren (Dutch). Arthur Stratton, F.R.I.B.A., F.S.A.
11. Foreign Influences on the Architecture of Sir Christopher Wren (French and Italian). W. Henry Ward, M.A., F.R.I.B.A., F.S.A.
12. Pembroke College Chapel, Cambridge. Dr. Ellis H. Minns and Maurice E. Webb, D.S.O., F.R.I.B.A. (Sir Christopher Wren's First Building.)
13. Sir Christopher Wren's Repairs of the Divinity School and Duke Humphrey's Library, Oxford. Edward Warren, F.R.I.B.A., F.S.A.

14. Sir Christopher Wren the Astronomer. A. R. Hincks, F.R.S., Gresham Lecturer in Astronomy.
15. Sir Christopher Wren's Contributions to Biological Science. Sir William Bayliss, F.R.S.
16. Sir Christopher Wren, Merchant Adventurer. Sir William Schooling, K.B.E.
17. The Dome and the Cross (Epilogue). Rev. A. S. Alexander, Canon and Treasurer, St. Paul's Cathedral.

The book will contain a large number of illustrations, including many in colour, and reproductions of original letters and drawings from the collections of the R.I.B.A., All Souls' College Library, etc.

The volume will be issued in three editions—viz., Subscribers' Edition, bound in buckram, price 5 guineas net; Edition de Luxe, limited to 250 copies, bound in vellum, numbered and signed, price 8 guineas net; and a Special Edition, limited to 50 copies, bound in leather, numbered and signed, price 25 guineas net. The size of the book will be 11½ inches by 8½ inches.

Intending subscribers should order copies from, or apply for subscription forms to, Messrs. Hodder and Stoughton, the publishers, at St. Paul's House, Warwick Square, E.C.4. The volume is to be published under the auspices of the Bicentenary Grand Committee and the Royal Institute, and the profits from its sale are to be devoted to the St. Paul's Preservation Fund.

MR. HAYWOOD'S PAPER ON THE BIRMINGHAM CIVIC SOCIETY.*

In the last issue of the Journal the Editor regrets that through pressure of space the following paragraph was omitted from the report of Mr. Haywood's paper on page 229 after the first paragraph :—

I need do little more than indicate by name such obvious civic work and propaganda as the organisation of exhibitions, lectures on civic subjects by first-class lecturers, committee work on memorials and housing, work on smoke abatement, advertisement control; designs for street accessories, and an attempt to initiate peripatetic lectures in our Art Gallery. In these and similar matters we play our part, which for some of us means rather an appalling amount of work, for although our proceedings are as brief as we can make them, there is, nevertheless, much time spent in unavoidable debate that would be much better employed in producing the thing discussed if that were possible. Perhaps our greatest work is the recently established "Advisory Art Committee." The setting up of a committee of this character was first put forward by the Birmingham Architectural Association in 1917, but, looking back, it is easy to see that the time was not then ripe for such an experiment.

The intervening five years of advocacy by the Civic Society have been years of increasing knowledge of municipal affairs on our part, and an indispensable preliminary to sympathetic co-operation with the City authorities. It is evident, too, that in this interval of time a certain hesitation on the part of the City Council has changed to trust and goodwill, without which such a committee as this could scarcely hope to be effective.

Nor do we imagine that the setting up of such a committee is an end in itself. It exists as an instrument for work to be done, and the use we make of it will be the measure of our success.

* The Paper was read before the Manchester Art Federation, not the Society of Architects.—Ed.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notices

THE ROYAL GOLD MEDAL, 1923.

A Special General Meeting will be held on Monday, 5 March 1923, at 8 p.m., for the following purpose :—

To elect the Royal Gold Medallist for the current year. The Chairman to move "That subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of Architecture be presented this year to Sir John James Burnet, A.R.A., R.S.A., Hon. LL.D., in recognition of the merit of his work as an architect."

BUSINESS MEETING, 5 MARCH.

The Ninth General Meeting (Business) of the Session 1922-1923 will be held on Monday, 5 March 1923, immediately following the above Special Meeting, for the following purposes :—

To read the Minutes of the Meeting held on the 19th February; formally to admit members attending for the first time.

To proceed with the election of the candidates for membership whose names were published in the JOURNAL for the 10th February 1923—viz., for Fellowship, 4; for Associateship, 9.

At the conclusion of the Business Meeting a discussion will take place on the paper on "The Lighting of Picture Galleries and Museums," by Mr. S. Hurst Seager [F.], which appeared in the R.I.B.A. JOURNAL for the 13th January 1923. Mr. Hurst Seager will show a number of slides and drawings illustrating his paper, and it is hoped that a number of members and guests specially interested in the subject will be present and will take part in the discussion.

Competitions

BRECHIN WAR MEMORIAL COMPETITION.

Members and Licentiates of the Royal Institute of British Architects must not take part in this competition because the conditions are not in accordance with the published regulations of the Royal Institute Architectural Competitions.

PROPOSED CENOTAPH, PARAGON SQUARE, HULL.

The President of the Royal Institute of British Architects has nominated Mr. Stanley Hamp, F.R.I.B.A., as Assessor in this Competition.

Members' Column

MR. ALEX. CULLEN.

MR. ALEX. CULLEN [A.] has commenced practice as an architect at 58, Catlow Street, Hamilton.

CHANGES OF ADDRESS.

MR. HUGH T. MORGAN, A.R.I.B.A., has removed his office from 58 Gower Street, W.C.1, to 14, Gray's Inn Square, W.C.1. Telephone: Chancery 8058.

MR. C. P. GARRARD, A.R.I.B.A., has transferred his office from Wimbourne House, Tower Street, Ipswich, to 26, Butter Market, Ipswich.

PARTNERSHIPS WANTED.

ARCHITECT, Surveyor and Civil Engineer, Licentiate, P.A.S.I., 15 years in practice, 25 years' all-round experience, is desirous of obtaining Partnership, preferably South Coast or Home Counties. Moderate capital available.—Address W. A., c/o Barclays Bank, Osborne Road, Southsea.

A.R.I.B.A. and P.A.S.I. desires to open an office in a large South Coast town in association with a London architect of standing, who is a capable designer. Advertiser is fully competent to prepare all Bills of Quantities. Good opportunity for capable designer to retain quantity surveyor's fees, and for generally supplementing a London practice. Highest credentials given and required.—Apply Box 1023, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENTS WANTED.

ASSOCIATE R.I.B.A., with 12 years' experience in good New York City offices, including Cass Gilbert, Trowbridge and Ackerman, J. Armstrong Stenhouse, Fredk. Stern, finds it desirable, for family reasons, to return to England, and would be glad to hear of any suitable proposition. Previously in practice in London. Now and for past two years engaged as designer with one of the best known younger New York men. For further information apply Box 1513, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

ARCHITECTURAL ASSISTANT requires post in any capacity. Many years' experience in the Tropics and South Africa. Married; 35. First-class draughtsman; excellent references. An immediate appointment is essential. Not afraid of real work. Apply Box 445, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

Minutes IX

SESSION 1922-1923.

At the Eighth General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 19 February 1923, at 8 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 14 Fellows (including 6 Members of the Council), 32 Associates (including one Member of the Council), one Hon. Associate, one Licentiate, and a large number of visitors.

The Minutes of the Seventh General Meeting held on Monday, 5 February 1923, having been taken as read, were confirmed and signed by the Chairman.

The Secretary announced the decease of :—

John Reginald Naylor, elected Associate 1881, Fellow 1894.
William Walker, of St. Andrews, N.B., elected Fellow 1921.
Charles Frederick Innocent, elected Associate 1897.

William Arthur Webb, elected Associate 1890. Mr. Webb was a member of the Art Standing Committee from 1915 to 1920, and 1921 to 1922, and was Hon. Secretary of that Committee for Session 1919-1920.
And it was RESOLVED that the regrets of the Institute for their loss be entered on the Minutes, and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President :—

Mr. F. E. Towndrow [A].
Miss E. K. D. Hughes [A].
Miss G. W. M. Leverkus [A].
Miss Winifred Ryle [A].

Mr. H. V. Lanchester [F.], having read a paper on "Architecture and Architects in India," a discussion ensued, and on the motion of Mr. James Ransome [F.], seconded by Mr. Herbert Baker, A.R.A. [F.], a vote of thanks was passed to Mr. Lanchester by acclamation, and was briefly responded to.
The proceedings closed at 10.10 p.m.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER
Secretary R.I.B.A.

\hat{f}_{θ_N}

BOXWOOD CARVING OF SIR CHRISTOPHER WREN
BY GRINLING GIBBONS

Originally in the Collection of the late James Wyatt, R.A. (1746-1813).

(RIBA. Collection)



THE SIR CHRISTOPHER WREN BICENTENARY

The three following addresses by the President, Mr. Paul Waterhouse, M.A., Sir Reginald Blomfield, R.A. (Past President R.I.B.A.), and Mr. Mervyn Macartney, B.A., F.S.A. [F.], were delivered in place of the customary after-dinner speeches at the Commemoration Banquet held on 26 February.

Some Observations on the Character and Genius of Sir Christopher Wren

BY THE PRESIDENT, MR. PAUL WATERHOUSE, M.A.

IN the days of our great grandfathers' grandparents, no longer ago and no less, there lived and died in this England of ours a man so rich in the double birthright of aptitude and industry that he surpassed the level even of his most cultured fellows in at least three directions. Each of these directions was in itself no simple path of knowledge.

He was a man, moreover, blessed, by the Heaven which had so endowed him, with those three further gifts by which alone man can hope to win in battle against the limitations of time. He was granted not only longevity of mind—a treasure far greater than mere length of days—not only an early ripening which it would be irreverent and untrue to call precocity, but also, and above all, opportunity.

The three directions, or three roads of energy, were :—Classic knowledge—(the humarer letters), science in the sense of universal physiology, and, for a crown of great glory, architecture.

I suppose that no greater nor more humbling honour could fall to any man of my craft in my day

than to be chosen, by whatever accidents of time and circumstance, to lead his brother craftsmen in an act of homage to the ever-flowering memory of that more than great man—Wren, Sir Christopher.

But in fact the honour has been added to, for our pilgrimage of architects, its numbers swollen by the thousands who were with us this afternoon in thought, though not in body, was graciously increased by the presence of distinguished men whose mission and desire it was to represent the great universities of Oxford and Cambridge, the Royal Society, and younger bodies, which, if they cannot claim to have been spectators of Wren's life and participators in his activities, at least offer their thanks and praise on lines of entirely kindred sympathy. Specially welcome was the spontaneous and almost impromptu representation of those trans-Atlantic brethren, the Architectural League of New York, between whose soul of art and ours no ocean rolls.

I have been driven by a logical process, as convincing as it is incorrect, to the conclusion that

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

to-day's hero, the man whom to-day we celebrate, was just four times as great as the men to whom we normally ascribe greatness. I will expose my process, for though I have discarded its chain of reasoning as vicious, I am entirely confident of the virtue of its result.

It begins by generously sacrificing one of the three domains into which I have partitioned the mental activities of Sir Christopher. I cast his brilliant and fascinating Latinity into the same scale as his architecture. Both, after all, are but the modes of an expression. The same study, the same play of brain which empowered him to master the syntax, etymology and orthography of architecture, give him the force to make his own the orders and elevational composition of Roman speech.

Against this I array his mastery of the universe of science, his pre-eminence as an astronomer, his accepted leadership in the realms of physics, mechanics, meteorology and chemistry.

In acknowledging these powers we find him to be not merely a man of two-sided knowledge—that, indeed, is rare enough—but of double superiority. He outran his companions on both courses.

We must go further. True as it is that no success in adventure exists without skill in discovery—or rather that creation does not thrive without nourishment—it is a fact known to all scientists and to most artists that successful and industrious research is not always accompanied by successful invention. Nor does archæology necessarily lead to art.

Here, however, was a man in whom the deepest powers of absorption went hand in hand with the brightest faculties of production.

Ex nihilo nihil fit, how true! But alas! nothing can come out of something, too. *Parturiunt montes*, well and good; but, however, the answer to kind enquiries is simply *Mus*.

The mountains, for all the hidden ore that swells their depths of knowledge, have sometimes but a ridiculous monosyllable as their contribution to the world's progress.

Wren in his architecture and his science was a very Janus. One countenance faced the past with the sure smile of a conqueror; the other, Alexander-like, shot its glance of expected victory on the world of posterity. It matters not that his methods of learning in architecture were apparently miraculous, that no pen has recorded, perhaps no

eye saw, his days of study; the past was his sure captive, and we, the posterity towards which his keen old eyes were strained, are his happy captors too.

No need for me to interpret these metaphors into history, for indeed the history is before you all, and most of my hearers know it better than I do; but it is clear, is it not, that no man's architecture was ever more truly based on acute knowledge of the language of the past—a Latin or Romance past if you will—and it is certain that only by profound study of the work of his predecessors in the worlds of scientific discovery could any natural philosopher have illuminated his age with such brilliant original and inventive work.

I judge, then, that had Wren, by loss of early maturity, loss of opportunity or by early death, so limited his energies that he could put forward one only of his four claims he would still have won his niche among the great, be it as archæologist, as architect, as inventor or as man of research.

On these grounds I hail him as a fourfold champion. But, brother architects, there is another road to our conclusion; and those of this distinguished company who have won their merited distinctions on other battlefields than ours will forgive us if for a few brief minutes we claim the whole gamut of Wren's "harp of diverse tones" as integral parts of his amazing victory-chant in architecture.

This may seem presumptuous on our part. That it should so seem is contrary to reason. Believe me, my non-architectural friends, what we claim for architecture we do not, we dare not, claim for architects. No architect worthy of the name would ever deem himself worthy. All of us know that the mountain we climb is a Parnassus with a cloud-capped brow. Its summit is beyond our eyesight, and the path thereto is at its highest untreadable.

Far be it from me to suggest that Wren's corn-sowing drill, his apparatus for producing fresh water at sea, his disinfectant fumigator, his barometer, his self-registering thermometer or his rain-gauge were necessary adjuncts to his output as an architect, though I have little doubt that his diplographic pen found a place on his specification desk, while his special level and his cure for smoky chimneys were definitely what we should hail as boons to the office.

But emphatically I do say that the mind which was so equipped as to be able to devise such

COMMEMORATION BANQUET ADDRESSES

things, and still more the mind that mastered those deeper mathematical, geometrical and astronomic themes which I do no more than mention here, was a mind which could make the highest flights of such a scientific brain ancillary to the mistress art of architecture.

Wren was a prince, an emperor, among constructors. Very few pocket-books of formulæ can have been of any use to him, for he was above and beyond them. We marvel at his daring, but it was a daring inspired and fortified by knowledge. The work he did—even if it be proved by other speakers to-night that he was over-bold—was not the work of foolhardiness but of hardness in scientific bravery. And it is certain that we are wrong in attributing merely to the skill of his undoubtedly skilful operatives the marvellous success of his genius in surmounting difficulties of gravitation, durability and span.

In the presence of certain notable scholars may I venture to come back for a moment to my association of Wren's Latinity with his architecture. We are a generation, probably the last generation in this country, of which some can remember the writing of Latin verse. There are some here who can recall that performance with pleasure, and they will remember how very close as an exercise of the brain that pursuit lies to the practice of architecture on traditional or classical lines.

There is necessary for its performance a good knowledge of the medium and a reasonable full vocabulary. These are acquisitions which a young schoolboy seldom has in generous measure. The Ingés, the Ronald Knoxs, the Pembers are rare.

But given these—I may explain that they were not given to me—the game is a glorious game. There is an idea to be expressed, to be expressed if possible with dignity, and to be expressed, moreover, in symbols, counters, words of fixed significance and of fixed metrical value. Their disposition as sentences is governed by the strictest of rules. Moreover, though there is generally an umpire at hand, no rule of this game can be bent to suit the writer's difficulties, for the committee that framed them was dead and buried in or about the year zero A.D. A solecism is the writer's bankruptcy, a false quantity or a false concord is his death.

I would not say that the rules of architecture are as harsh as that, for our language, ancient as it is,

is a living tongue ; and we can breathe into it such little changes of syntax, such little shiftings of accent, and (but very sparingly) such timid inventions of new words, or of new meanings for old words, as make the difference between a Shakespeare and a Tennyson. But this small privilege of licence—a licence which must never quench the recognisable melody of the old and ever-aging tongue—can never obliterate the astonishing likeness between the literary and the architectural arts, both of which have to achieve their expression in the language of our forefathers.

That Wren should have been a good Latinist is, I admit, less remarkable than that he should have been a much more than good architect.

Dr. Busby, though but at the beginning of his long career, was no doubt already an expert with that instrument on which he became a world-famous soloist. In any case Westminster stood for good Latin, and young Christopher left, at the age of 14, with a Latin equipment far better than that of a good second year Oxonian of our day.

In architecture, it is true, Wren had certain personal advantages. His father, Dean though he was, and a very manifold incumbent, was no mean amateur in architecture, and no inconsiderable patron. A seeming paucity of first-rate professionals, and a very high level of knowledge in the standard of that acquaintance with architecture which was the adornment of many a non-professional connoisseur, made it comparatively easy for a gentleman of Wren's superlative culture to glide—almost to drift—into what we should call practice. And so, though Wren's earliest openings were surveyor-like in our limited sense of this word, it is scarcely with surprise that we find him embarking under his uncle's patronage on the Pembroke Chapel at Cambridge, and under that of his own University, on the Sheldonian Theatre. Scarcely, again with surprise, do we find these two buildings to be, if tentative, at least scholarly. None, however, of these explanations will annul the marvel of so rich a maturity of architectural knowledge in a mind whose energies had been spent—one had thought absorbed—in the career of an accomplished leader of scientists and *literati*. Mark how at this stage that Providence which seemed ever ruling his destiny towards completeness came to his aid. The Plague sent him to Paris, no bad school of architecture, in almost divine preparation for that fuller life of architecture into which he was to be flung by fire. And if we admit here an intervention

which seems superhuman, may we not acknowledge also that it was the Divinity which shaped his end that kept him from the realisation in stone of the "Warrant" design for St. Paul's?

And now, having praised his perfection, may I ask you to glory also in his imperfection?

You will have experienced, if you are an acute student of architecture, one, two, or perhaps three disappointments in connection with Wren's work. There will be a building, or perhaps part of a building, which seems to you not indeed a blot on Wren's fame, but a slight dimness in his brightness. Your first thought on feeling the pain of this discovery will have been a very proper stab of self-reproach.

I am not sure that such an attitude is not the right one, for of Wren it may nearly be said that

"The very errors of his master mind
Were greater than the virtues of mankind."

But there is a happier way. Had any lesser mind than Wren's been forced to make performance follow so close on the heels of learning, what, think you, would have been the number of his trespasses? And Wren, whose great knowledge was for ever getting greater, what think you was his judgment on

the things that trouble you? Depend upon it, brother architects, that grand old man in his latter days could have taken you round London and shown you in his own work more errors than ever you or I should find. So when we see these things, these very few, and pride ourselves, however regretfully, on the keenness of our critical vision, let us cast aside that pride and those regrets, let us leave our judgment unspoken among our fellows, and let us, without smothering our opinion—for opinions are always worth forming—let us keep the matter as a secret between ourselves and Wren. In such secrets held close with great minds of the past there is strange happiness.

I end with what I believe to be the thought of us all. We to-day pay reverent homage to a man so dowered with the gifts of genius and with the spirit of industry that his leadership in the field of natural science found no equal save in his supremacy as an architect; one, moreover, whose culture in classic literature was gracefully balanced by a character so gentle and alluring as to win this outburst from a contemporary:—

"It was doubtful whether he was most to be commended for the divine felicity of his genius or for the sweet humanity of his disposition."

The Artist and the Man

BY SIR REGINALD BLOMFIELD, R.A., PAST PRESIDENT R.I.B.A.

I HAVE been asked to make a few remarks on Wren; and the first thing that occurs to me is the eccentric methods that have been adopted to celebrate the Bicentenary of his death. The Bishop of London, advised by one noble lord and urged on with some truculence by another, proposed to celebrate the occasion by demolishing some nineteen or twenty of Wren's City churches; thus reversing the Hebrew custom of first stoning your prophet and then building a shrine to his memory and saving us from the necessity of further burdening our memory with the work of the past. Our methods here, at any rate, are more genial; following, apparently, the precedent of Guy Fawkes we are celebrating the Bicentenary of Wren's death with festivities, this excellent dinner to be followed, I am told, by a dance somewhere else; a little unusual, perhaps, yet there can be no doubt what we mean by it. It is a mark of our admiration and

affection for the memory of one of the greatest artists England has ever had.

Wren's career, in a way, was an amazing anomaly; I doubt if any other architect has ever been placed in a position of first-rate responsibility on such an absolute minimum of technical training. It is a remarkable fact that, out of the six leading architects of the seventeenth century, two, Wren and Perrault, started as amateurs, and the third was a sculptor who prided himself on translating sculpture into terms of painting and treated architecture as so much modelling clay. Wren himself was born in a good position, highly educated in the Humanities, which then included science. He was regarded as a prodigy of learning and ability while still an undergraduate. From Wadham he proceeded to a fellowship at All Souls. He was appointed Gresham Professor of Astronomy in London before he was twenty-four, and Savilian Professor at Oxford

COMMEMORATION BANQUET ADDRESSES

very soon afterwards. By the age of thirty he was recognised as one of the leading scientific minds of the day by John Evelyn and all the intelligentsia of the time. With the Restoration came his chance. In 1662 the fortification of Tangier had to be considered. Poor old John Webb, an able and experienced architect, and the last representative of the Inigo Jones tradition, was forgotten ; and the work was offered to Wren, who declined it, but was promised the reversion of the office of Surveyor-General, and in fact succeeded to it a few months later, a job even more flagrant than that by which Jules Hardouin Mansart superseded Lepautre at Clagny, for here was Wren placed at the head of all the architects of the time in England, and entrusted with most important duties, though, in fact, he had received no systematic training in architecture at all. Yet instead of beginning at the foot of the ladder he started on the topmost rung. A man of less confidence in his own consummate ability would have been daunted ; not so Wren. He wrestled with Serlio and Fréart, both very inaccurate writers, made his prentice venture in the Chapel of Pembroke College, Cambridge, and in 1665 set off for his famous six months' stay in Paris, armed with excellent introductions, and fully determined to pick the brains of all the best French artists. This was the time when Bernini was struggling in vain to make headway against the well-organised opposition of the French architects, and Wren caught a glimpse of his designs, but it was a glimpse only. Wren also visited all the famous houses in and about Paris, but it is to be noted that the work he saw belonged to the older generation, soon to be superseded by Colbert's young men, and the brilliant staff of Louis XIV. Wren wrote to a friend that he was bringing home "all France on paper" ; but "all France" could have been little more than the houses round Paris, as shown in the drawings of Silvestre and the elder Marot, and perhaps those interminable designs for ornament by Jean Le Pautre ; not much of a training for a first-rate architect, nothing approaching that of the French architects, or of Wren's great predecessor, Inigo Jones, who paid two visits to Italy, studying on the spot and making most careful critical and analytical notes on the architecture of the Romans, on Palladio and others, doing, in fact, what our School of Rome students ought to be doing. The result of Inigo Jones's studies was that at the age of forty he was a most accomplished architect and was able to produce that little

masterpiece of Neo-Classical, the Queen's House at Greenwich ; whereas Wren, at the age of thirty-five, could do no better than the shapeless lump of the Sheldonian at Oxford, which in its technical incompetence and absence of feeling for beauty of line, of proportion, of composition, is perhaps the worst building erected in Oxford prior to the Gothic Revival. I need only call your attention to the S. façade, facing to the Schools, an ambitious attempt at a grandiose design by a very ingenious but most imperfectly trained young man. And in referring to this let me say at once that great artists are not to be judged by the experiments of their youth, but by the high water mark of their attainment ; and I have called attention to this weakness of technique in Wren's earlier work because it makes the extraordinary mastery of his art that he gained in his mature days all the more remarkable. Moreover, technique, highly important as it is, is not the final criterion of Art. There have been artists who have made it so, the archæological classicists at the end of the eighteenth century, Ingres among painters and others ; but technique is not an end in itself but a means to an end, the expression of the artist's ideas, ideals and visions. One has to consider, further, the complexity of the problem that the architect has to solve. In the Parthenon, for instance, one finds the idea and its expression in perfect harmony, flawless and unimpeachable. But the Parthenon, based as it was on a long and well-understood tradition, was a simpler building to design than, let us say, the Thermae of Rome, or St. Paul's Cathedral. One may admit that Wren had not the perfect instinct for form and proportion of Inigo Jones, of François Mansart, of Jacques Ange Gabriel, but he possessed, in a higher degree than any of them, inexhaustible invention and resource. His mind, of great natural acuteness, was trained to a fine razor edge and went straight to the heart of matters. Consider, for instance, his scheme for the laying out of London. He may not have mastered the technique of architecture in his six months' stay in Paris, but no Frenchman could have helped him to that masterly scheme, in which he anticipated most of the theories of our modern town planners, the linking-up of buildings, the axis line and the radial treatment, the conception of the City as a whole and not as a collection of details. Consider, for example, his streets, ninety feet wide for the main thoroughfares, sixty for the secondary ones and thirty for

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

minor roadways. Nearly a hundred years later, when the great competition for the improvement of Paris was held, the French architects had not got beyond 36 feet as a maximum, and except in Portland Place we have not yet reached 90 feet. One finds the same versatility and quick grasp of conditions in the City churches. Wren had to design them under most difficult conditions of site, time, and money, yet how admirable they are. The great French churches of the seventeenth century are fine in their way, but there is a deadly monotony about them ; as one French writer puts it, the Jesuit Church rears the same implacable façade in every land and under every sky. They had lost the secret of the Parish Church, their churches were useless as models for Wren ; and all he found in England of recent church building consisted of the Caroline churches in which degenerate Gothic struggled with bastard Classic. Wren had to find his own way. He took as his data the strictly practical conditions of the churches, and these he translated into forms characteristically English, availing himself of the full paraphernalia of Neo-Classical, yet weaving into it reminiscences of earlier work, so that these towers and steeples were not exotics, but spoke at once to the English people in a language that they recognised as their own, and they preserved that individuality and that kindly character which in England is of the essence of the Parish Church. Wren's churches are the glory of the City, yet there are iconoclasts worse than the Puritans who are ready to convert them into thirty pieces of silver.

I have pointed out the inadequate training that Wren received in architecture ; he was under no master ; indeed, he himself was his own master. Few men have had his opportunities of learning the art of building from their actual design and execution, but few, if any, have ever made such an amazing use of their opportunities as Wren did. Not only was Wren's a master mind, but he possessed the modesty of the true artist, who thinks of his work before he thinks of himself. He probably realised his own mistakes long before anybody else, and the rapidity of his development was due to his incessant criticism and analysis of his own work, learning from his own mistakes, accumulating vast stores of knowledge from his actual experience on the scaffolding of his buildings. Where other men have advanced by slow and laborious stages, Wren advanced *per saltum*, and the most extraordinary

instance of this is St. Paul's Cathedral. Wren appears to have made several designs. There was his own favourite one, rejected by the clergy with some justice, inasmuch as though pleasantly reminiscent of some of the projects for St. Peter's, it was quite unsuitable for the purpose of the Cathedral. Then there was the utterly preposterous Warrant design, that nightmare conception of a huge dome, truncated half way up, on which was to be reared a drum and another dome, which again was to have its top cut off and to be continued in a telescope steeple in six stages. This was the design "pitched upon," as the Royal Warrant put it, as "very artificial, proper, and usefull." And my impression is that the authorities, being wholly ignorant of architecture, tossed up as to which of the designs they should select. Yet it was from this most unpromising start that Wren began and carried through to completion the glorious building of St. Paul's Cathedral as we now see it.

It was the same with nearly all Wren's buildings, they are so much finer in execution than as shown in his draft designs ; and the reason is that Wren's splendid genius was constantly at work, playing round his building, criticising and correcting. St. Paul's has been treated with contempt by a famous poet, whose criticisms of architecture were inspired less by any knowledge of the art than by anxiety to prove certain theories of the social state. I have the greatest admiration for that poet in other regards, but when he came to deal with architecture he seems to me to have parted company with common sense and the facts of history. His followers are obsessed with the idea that an Englishman can only express himself in terms of Gothic. If ever there was an architect who thought in terms of building, that man was Wren ; like Ulysses, he was πολιτλας πολνητις.

One or two reflections occur to me as the result of my meditations on Wren's career. The first is in regard to the training of an architect. It is the custom generally to start the technical training of students early, either directly in an architectural school, or in a modified and rather more generalised form at one or other of our universities ; the inevitable result is that general education has to be cut short, and this omission can never be made good in later life, because the aim of good education is not to cram in knowledge, but to train and discipline the mind while it is still malleable. Wren is the most conspicuous example of an architect who did

COMMEMORATION BANQUET ADDRESSES

not take up the technical study of architecture till he had completed an unusually thorough course of general education ; and he supplies the most convincing evidence in favour of the "gymnastic" theory of education. It may be said that Wren was exceptional. To that I would say, this only proves the folly of the prevalent theory that anybody with sufficient training can become an architect and that all you have to do is to supply the crude material to our costly state-aided and other machines, turn the handle often enough, and out comes the architect.

I would say, on the other hand, that the natural endowment necessary for an architect is rarely found, and that it was the existence of this in Wren that was the other factor in his amazing skill. The other thought that occurs to me is that of the man behind the architect. We are too apt to believe the fanatics who impress on us that modern architecture is a mechanical affair without a soul of its own. I do not believe it. An architect can express himself in his art ; indeed, he can give himself away ; and one finds the meticulous man meticulous in his

work, the small man small and the great man great ; and this is where Wren was so splendid. In all his mature work one finds the quality of the man reflected, not only in his resourcefulness and invention, but in a certain fine balance of intellect. His was a cheerful, sunny nature, friendly, companionable and humorous, and it is this that endears his work to all of us as something peculiarly and intimately English. One does not think of him as one does of Jules Hardouin Mansart, elbowing his way to the front, flattering the great, trampling on the weak, and ending up with a marquisate and £30,000 a year, and the contempt of most of his contemporaries. One thinks of Wren in his dignified old age, visiting his masterpiece once a year, "as well pleased to die in the shade as in the light," and showing in misfortune the same dignity as he had shown at the height of his career, a man who in his life had enjoyed the affection and admiration of all the best men of his time ; and to whom in his death one might apply those famous words of Pericles, "The whole earth is a shrine to the memory of illustrious men."

Recent Investigations at St. Paul's Cathedral

MR. MERVYN MACARTNEY (Surveyor to the Fabric of St. Paul's), referring to the recent investigations at the Cathedral, said :

The foundations at St. Paul's are very shallow. Soon after the building there was a slight settlement, but I do not think it has increased much since. Recently we have been down to expose the foundations, but so far as we can judge there is no great settlement. We found what we did not expect, that large stones placed there belonged to Inigo Jones's portico, as they had classical mouldings. We found that the layer of clay was moist. The eight piers of the dome tilted towards the dome area very much like a man standing on tip-toe. There was also a slight inclination of all these piers towards the south and the river, and

we found that all through the Cathedral. It was not very much. The next thing we found was a distinct tilt of the dome towards the south-west. I believe that it started very early and that they tried to compensate it afterwards, because it was only $1\frac{1}{2}$ in. at the level of the Whispering Gallery, and 96 ft. off the floor of the Cathedral. We also found that the dome was not circular, but it was a very fine ellipse and was 6 in. wider from north to south than from east to west. Consequently there was a slight break in the dome at each end. I do not know how to explain it except that I think that the pressure of the dome was equal all round, but the supports of the nave and of the choir were heavier than those of the north and south.

Commemoration Service at St. Paul's Cathedral

A Commemoration Service was held in St. Paul's Cathedral on Monday, 26th February, at 2.30 p.m., and was attended by a crowded congregation. Prior to the service the Lord Mayor and the Sheriffs of the City of London, Mr. Paul Waterhouse (President of the R.I.B.A.), Sir Aston Webb (the President of the Royal Academy), members of the Institute and the Bicentenary Committee assembled in the churchyard. A detachment of the H.A.C. (of which Wren was one of the original members) formed a guard of honour.

The assemblage was met at the west door by the Bishop of London and the Dean of St. Paul's, and a procession was formed to enter the cathedral.

The brief service opened with Psalms, and Dean Inge read the Lesson from Haggai, ii. 4-10, which contained the passage that made the text of his address : "The glory of this latter house shall be greater than of the former, saith the Lord of hosts : and in this place will I give peace, saith the Lord of hosts." The anthem which followed, "O clap your hands,"

was sung to the music by Maurice Greene, who was appointed organist of St. Paul's at the age of 23, when Wren's long life was drawing to its close. There was another link with the Cathedral's earliest days in the prayer read, which had been composed for the service of consecration of the choir in the year 1697. A special prayer for the occasion was in these words :

" We render Thee thanks, O Lord, for the singular gifts which Thou didst bestow upon Thy servant Christopher Wren, whom we remember before Thee this day ; beseeching Thee to grant that in Thy holy house, preserved from all dangers and guarded through the perils of war, we and those who shall come after us may be enabled so to worship Thee in sincerity and truth that we fail not finally to attain Thy heavenly promises ; through the merits of Jesus Christ our Lord. Amen."

"Lift the strain of high thanksgiving" was the first hymn sung, and after the Dean's address all joined in singing "Jerusalem the Golden."

Address by the Very Rev. W. R. Inge, D.D.,

DEAN OF ST. PAUL'S

Haggai ii. 9. The glory of this latter house shall be greater than of the former, saith the Lord of hosts : and in this place will I give peace, saith the Lord of hosts.

We have met here to do honour to one of the greatest of Englishmen, in the building which is the greatest triumph of his genius. It is probable that the reputation of Sir Christopher Wren stands higher to-day than it did a hundred years ago, or two hundred years ago. It sometimes takes a long time for a great man to be appreciated at his true worth ; in his lifetime he often encounters injustice and neglect. Perhaps the most remarkable thing about Wren is that he was so much besides a great architect. He was a true son of the late-flowering English Renaissance, in that, like the great Italians of the Renaissance, he was no specialist, but turned his hand to a variety of subjects, and excelled at them all. Wren was well known as a mathematician, astronomer and physiologist, before he won fame as an architect. He was a man who could have succeeded in almost anything he undertook. Evelyn calls him "that rare and early prodigy of universal science, Dr. Christopher Wren." He also showed greatness

of character, accepting with dignity and without bitterness many undeserved slights, as when the Government docked half of his modest salary in order, as they facetiously put it, to encourage him to proceed faster with the work of building this Cathedral.

Like many other distinguished Englishmen, he came of clerical parentage. It would be an interesting subject of inquiry to show how many of our greatest men we should have lost if the marriage of our clergy had been forbidden. Wren, Nelson and Tennyson are only three names out of an illustrious list.

Great architects are fortunate in one respect—that their works remain as witnesses of their ability ; no doubt their failures also remain : the name of Wyatt is kept alive by the sight of the numerous cathedrals which he scraped and defaced. But in another way they have been less fortunate. The great churches of Western Europe are the delight and wonder of each generation in turn. It was reserved for the modern apostles of *Kultur* to batter some of them to pieces, after all previous wars had spared them. But the names of the builders are mostly unknown. It remains one of

SIR CHRISTOPHER WREN BICENTENARY

the marvels of the history of civilisation that in a period otherwise so barbarous as the eleventh to the fourteenth century, unknown builders should have erected the most glorious monuments of architectural genius. Evidently the best thought and imagination of that age expressed itself naturally in the frozen music of architecture more completely than has ever happened since.

Probably these marvellously beautiful cathedrals were the fruit of collective inspiration. There was no self-conscious æsthetic theory, such as has created many laboriously imitative or smirking erections in our own day. They came into being as the natural and instinctively right expression of faith and worship by men who valued these things as our people value football and betting news. The workmen themselves contributed not a little to the beauty of design and ornament. We cannot see them in their full beauty, because the rich jewelled glass has mostly perished, and the buildings have been disfigured both by time and by the hand of man. Nor is it easy for us to realise how perfectly adapted they were for the gorgeous and moving drama of mediæval worship.

Few of us have any notion of the exquisite beauty of London before Henry VIII demolished the monastic establishments which occupied a great part of the City, and even down to the Great Fire. The old Cathedral, with its 500-feet spire, rose above a forest of spires and towers, some of which marked the position of churches only less magnificent than the Cathedral itself. These, with the old black-and-white houses and the absence of smoke, must have made London a place to be visited from the ends of the earth. These beauties are gone for ever, and it is useless to deny that Sir Christopher Wren shed no tears over the destruction of Gothic London. He could not see the beauty of mediæval architecture. Only the accident of the Great Fire enabled him to live as the creator of new St. Paul's instead of as the restorer of the old Cathedral, which he was preparing to deal with in a manner which makes us shudder. Times had changed ; the seventeenth century had different ideals.

Every genuine style of architecture reflects the main characteristics of the age when it appears. Egyptian architecture expresses power, wonder and awe ; the Greek temples reflect the love of measure and balance, the serenity and positivism of the Greek genius ; the Roman buildings express a love of solidity, force and utility. In the Byzantine

churches, of which St. Mark's at Venice is a copy, the spirit of the Christian religion perhaps finds its best expression ; they breathe solemnity, mystery and devotion. In Gothic churches we are reminded of the interlacing forest trees of northern Europe, and the age of romance and chivalry lives again in their dim vaults and clustered columns. The love of sharp outlines to be seen against the sky, especially of pierced pinnacles and turrets, distinguishes them from earlier styles, and the admission of the grotesque divides them both from what went before and what was to come after.

The Renaissance in Italian architecture was a genuine revulsion against influences which came from beyond the Alps ; it was a patriotic revival of old Roman ideas. What it meant in England is not so easy to say. But we can see that the spirit of Gothic architecture had no message for our countrymen in the seventeenth century ; it was simply unintelligible to them. And the rationality, completeness and sober dignity of Wren's architecture did appeal to the temper of the age. Wren was annoyed with the architects of Salisbury because they left no margin of security ; they ought to have buttressed their spire, and not made it so unnecessarily tall. There was no mysticism and not much poetry about those gentlemen in full-bottomed wigs ; but their view of life was sane and sensible, and they expressed it very honestly in stone and brick. Their work is superior to that of the Gothic revivalists of the nineteenth century, which illustrated not only their attachment for the Middle Ages, but their very imperfect understanding of them. Their buildings will survive as a monument of sentimental homage to an age which existed only in the imagination of themselves and their patrons.

Wren is an architect's architect. His merits are realised best by those who have studied the technique of building. These are also astonished at the mass of his work, and its varied ingenuity, which are the more remarkable in a man who only took up architecture in middle life. Besides the fifty City churches which he designed—some of them beautiful, like St. Stephen's Walbrook ; others perhaps valued only because he built them—we may remind ourselves of the Chapel of Pembroke College, Cambridge ; the second quadrangle and chapel at Trinity, Oxford ; the Royal Exchange and Custom House (both burned down later) ; the Chapel of Emmanuel, Cambridge ; Temple Bar ; Mercers' and Brewers' Halls ; the Monument ;

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Trinity Library, Cambridge ; Hampton Court Palace ; Greenwich Observatory and Royal Naval Hospital ; the Ashmolean Museum and Tom Tower, Oxford ; the Great School Room at Winchester ; the Town Hall at Windsor, and Marlborough House.

But the great Cathedral is his chief monument. It has accumulated more glorious memories than old St. Paul's, because that was only the centre of a small country, whereas new St. Paul's is the metropolitan cathedral of the greatest empire in the world's history. Within the last fifty years it has taken its proper place as the chief religious centre of the empire. Every Sunday it is filled by several thousand worshippers ; even on weekday afternoons we often have four or five hundred ; at all times of the day groups of visitors are to be seen wandering about it : and who will ever forget the sad and solemn services which were held during and after the war, both for supplication and to do honour to the fallen ?

The safety of such a building concerns the national honour ; and we cannot doubt that if we could ask Wren in what way he would most desire that his memory should be honoured by posterity, he would say : " Preserve St. Paul's ; make it safe for a thousand years. Think that my spirit often visits it, as I used to do when in the body every year till the end of my earthly life. Keep my great work safe for your posterity ; let them enjoy it and bless my name. Let St. Paul's remain the centre of the British Empire as long as the empire itself survives, and as long as the Church of England—broad, wise and tolerant—lives to represent the character and worship of the English people."

We have been proud to cover our walls with records of brave soldiers and sailors. But St. Paul's is not only a Valhalla of departed fighting men. We long for the time when wars shall cease in all the world, and when we shall be able to honour here only the benefactors of humanity in the arts of peace. May it be ours to apply the words of Haggai

to a greater temple than he knew : " The glory of this latter house shall be greater than of the former, saith the Lord of hosts, and in this place will I give peace, saith the Lord of hosts."

If not, the next war may see the end of this, and of many other monuments of human genius.

TRIBUTES BY BRITISH, AMERICAN AND FRENCH ARCHITECTS AT THE TOMB IN THE CRYPT.

After the service the Bishop, the Dean, the Lord Mayor and Sheriffs, and members of the Institute Council and members of the Bicentenary Memorial Committee proceeded to the Crypt. Mr. Paul Waterhouse placed in the tomb a wreath of laurels bound with violet velvet, and read out the inscription it bore as follows :—

*In thanksgiving to Almighty God
for the talents, industry and blameless life
of
Christopher Wren
in reverent homage to that great man's name and memory
and
in profound admiration for his mighty works
we Architects of Britain
lay this wreath on his tomb.*

On behalf of the Société Centrale des Architectes Français, M. Augustin Rey deposited a bronze palm. Speaking in French, he said : " In the name of the architects of France, I place this palm on the tomb of a great artist, a great citizen, and a great patriot." A wreath from the French Société des Architectes Diplômés was also placed by M. Rey on the tomb.

The Architectural League of New York, by the hands of Mr. Candler Cobb, of the American Embassy in London, also paid the devotion of a wreath. It bore the words :—

*In appreciative memory of Sir Christopher Wren,
whose work marked so distinct a step in world architecture,
and to so large a degree influenced the colonial architecture of America,
this wreath is offered in loving memory by the Architectural League of New York, and is placed here by the representative of the American Ambassador, Mr. George Harvey.*

Wren Memorial Exhibitions

THE EXHIBITION AT THE R.I.B.A.

BY W. HENRY WARD, M.A. [F.]

The exhibition which the R.I.B.A. has been able to get together for the bicentenary of Sir Christopher Wren is altogether worthy of the occasion. It touches on many sides of that great and many-sided character. It illustrates his executed and surviving works adequately without neglecting others that were merely projected—such as the mausoleum for Charles I at Windsor (68)—or which their sites know no more—such as Temple Bar—throws light upon the growth of ideas in his mind, and calls up his person before us by relics and portraits.

The drawings from his own hand—or, at least, from his office—though not numerous, are of a high order of interest. There were insuperable obstacles in the way of transporting the huge volumes in which the All Souls drawings are housed; but Pembroke College, Cambridge, has sent what must be one of Wren's earliest architectural drawings, an elevation of the chapel, together with the slightly later model showing a better thought out design (140).

Other drawings include a sketch section through an unidentified building—possibly Trinity College, Oxford—(24), and a fine tinted set of elevations of Hampton Court with *pentimenti* in the central features pasted on (21–23). But probably the most valuable contribution in this category is the original drawing (lent by the Director of Greenwich Hospital) showing a scheme for the lay-out of the Hospital (62). Inigo Jones's little masterpiece, the Queen's House, which closes at a considerable distance the vista of a monumental avenue of domes and colonnades, is obviously too slight in scale to support their weight. Wren proposed to clear it away, and possibly rebuild it farther inland, substituting as the centre of his system a great domed church. This was to be set in the midst of an oblong square, and—to increase the magnificence as well as the mystery of the river approach—an elliptical piazza, reminiscent of Bernini's, was interposed between this and the colonnades. The church on the land side opened on to a great area or parade ground walled in by double chestnut avenues planted on embankments, and closed by further buildings.

The scheme was doubtless too costly. Hence the second scheme (66), drawn by Hawksmoor (from the R.I.B.A. Library), in which the Queen's House is preserved and reinforced by angle pavilions, while the domed church is placed between it and the existing buildings, without the piazza, but surrounded by a series of finely planned garden courts.

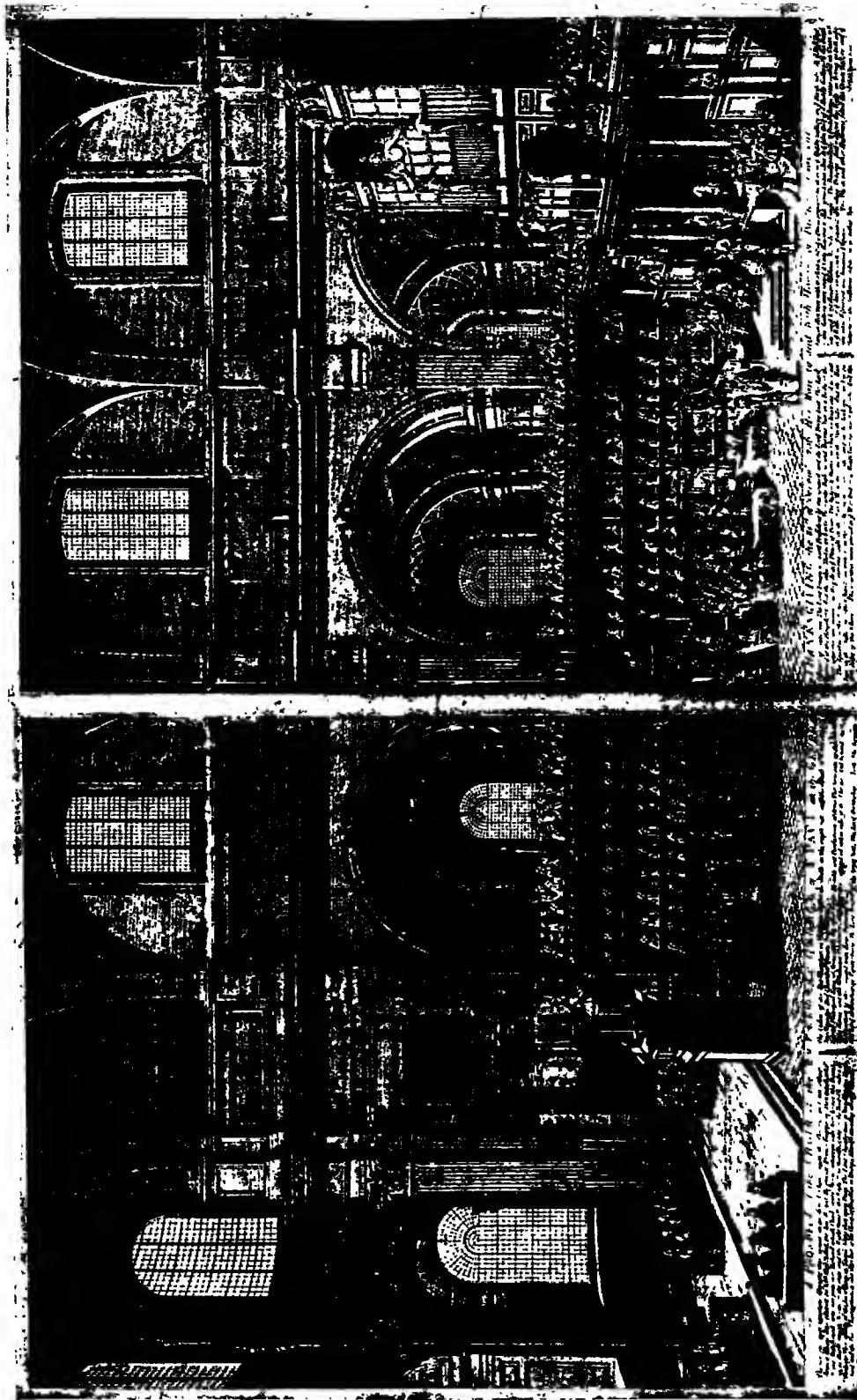
The dignified sobriety of Chelsea Hospital is admirably rendered by Mr. Philip Hudson's sympa-

thetic measured drawings (53 and 54), while the richer and wholly delightful School of Winchester is agreeably shown by a reproduction of Mr. Arthur Stratton's fine drawings.

The fascinating history of the design of St. Paul's may be traced through most of its vicissitudes on the walls of the gallery, particularly in the generous loans of Messrs. Batsford. Old St. Paul's and Inigo Jones's additions appear in Hollar's and Harris's prints (10 and 14). Wren's first design in its developed form with the domed vestibule and portico is represented by measured drawings and photographs of the model (11 and 43–6) and J. E. Goodchild's beautiful interior perspectives (40 and 42). We miss the Warrant Design, but Gribelin's prints (1702), lent by the First Commissioner of Works (34–6), exhibit splendidly the Final Design in its penultimate stage, when the upper portion of the dome and western towers had not yet attained the supremely satisfying solution of the executed work. In Rooker's vigorously engraved section (31) we may see Wren's unfulfilled dream of internal decoration to be carried out by the four best artists in mosaic from Italy. Contemporary manners and history are entertainingly reflected in Trivitt's prints of the Thanksgiving Service for the Peace of Ryswick (32), where in the choir in its pristine condition a courtly preacher and congregation complacently turn their backs on the altar to bask in the effulgence of the Queen's Majesty. Of the great cathedral as completed there is naturally a wealth of illustration, graphic and photographic, among which the set of eight aquatints by Malton (115–8 and 120–3), and the delightful coloured aquatint by Pugin and Rowlandson (119), the masterly measured drawings of the north porch by Mr. F. W. Troup (49 and 52), and isometric sectional elevation of the dome by Messrs. Dunn and Dawson (29) are among the most worthy of remark. But the exquisite and yet virile pencil work of the late C. F. Mallows's interior views deserves the attention it might miss among the stronger effects of surrounding exhibits.

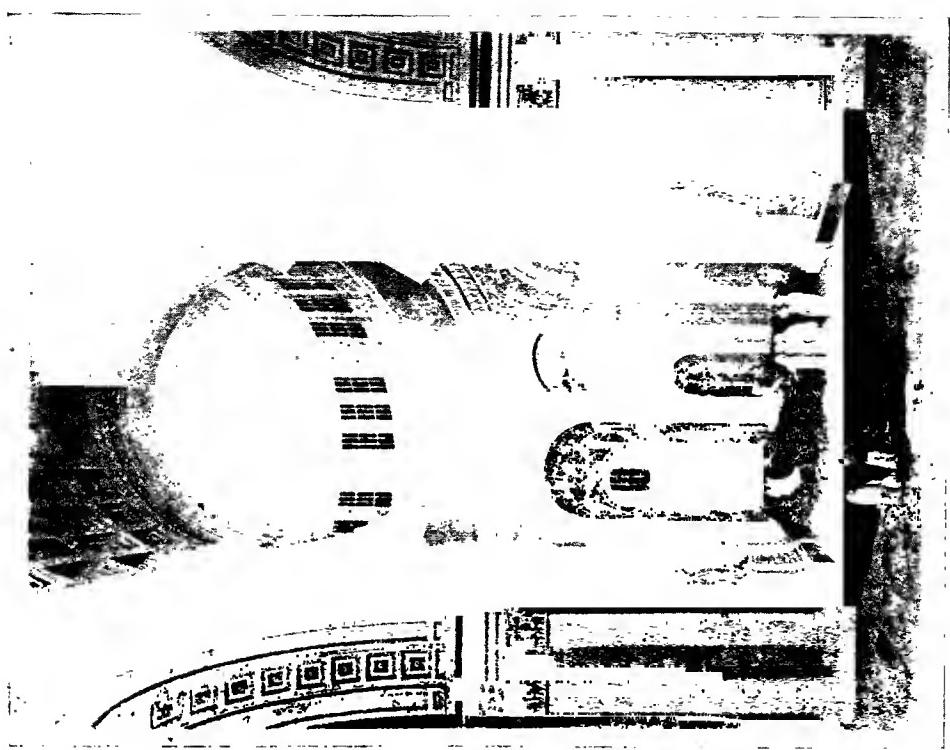
Trinity College Library—in its own line one of the most consummate of the master's works—makes a pleasant show in four aquatints—two uncoloured, by Harraden, of the river front; and coloured ones, by Ackerman and Pugin, of the interior and undercroft—not to mention plates from Belcher and Macartney's Later Renaissance.

The splendid collection of photographic views contributed by Messrs. Batsford and Mr. F. R. Yerbury, which almost fills the East Gallery, brings before us vividly the principal executed works, almost overwhelming in their cumulative impression. The group of London steeples creates an effect of airy and romantic



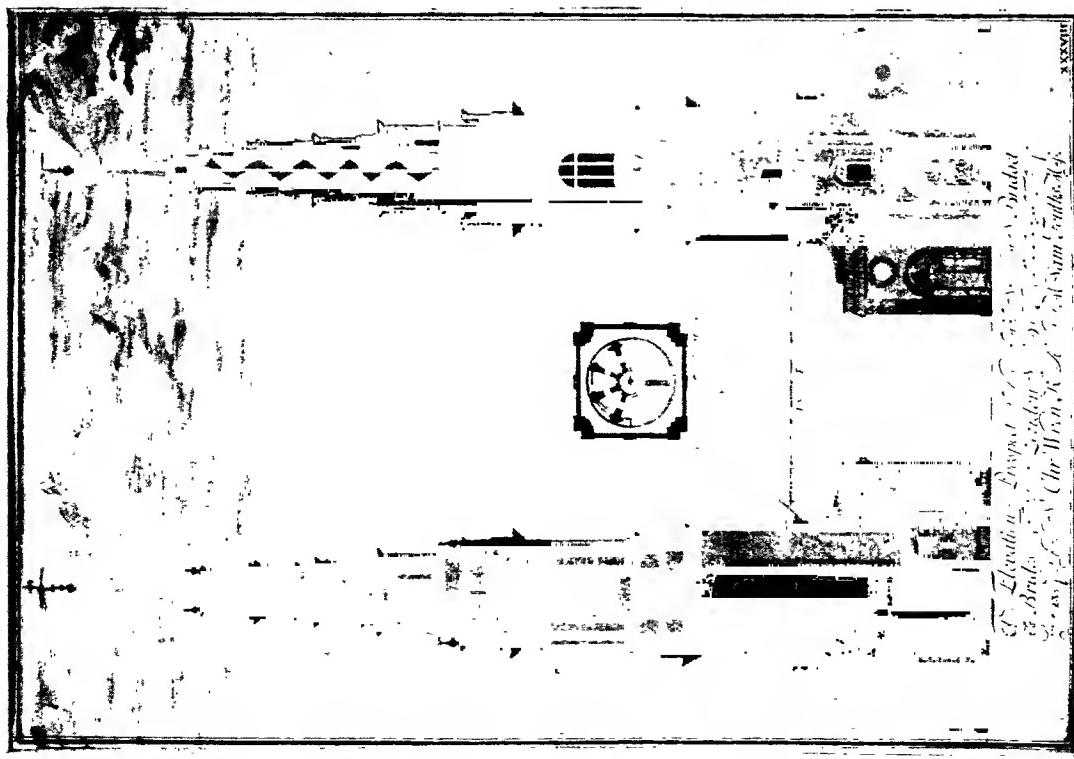
St. PAUL'S CATHEDRAL
Interior of the Choir on the occasion of the General Thanksgiving, 31st December 1706
Robert Trivett *fecit*. (Lent by the First Commissioner of Works)

R.I.B.A. Exhibition



St. PAUL'S CATHEDRAL

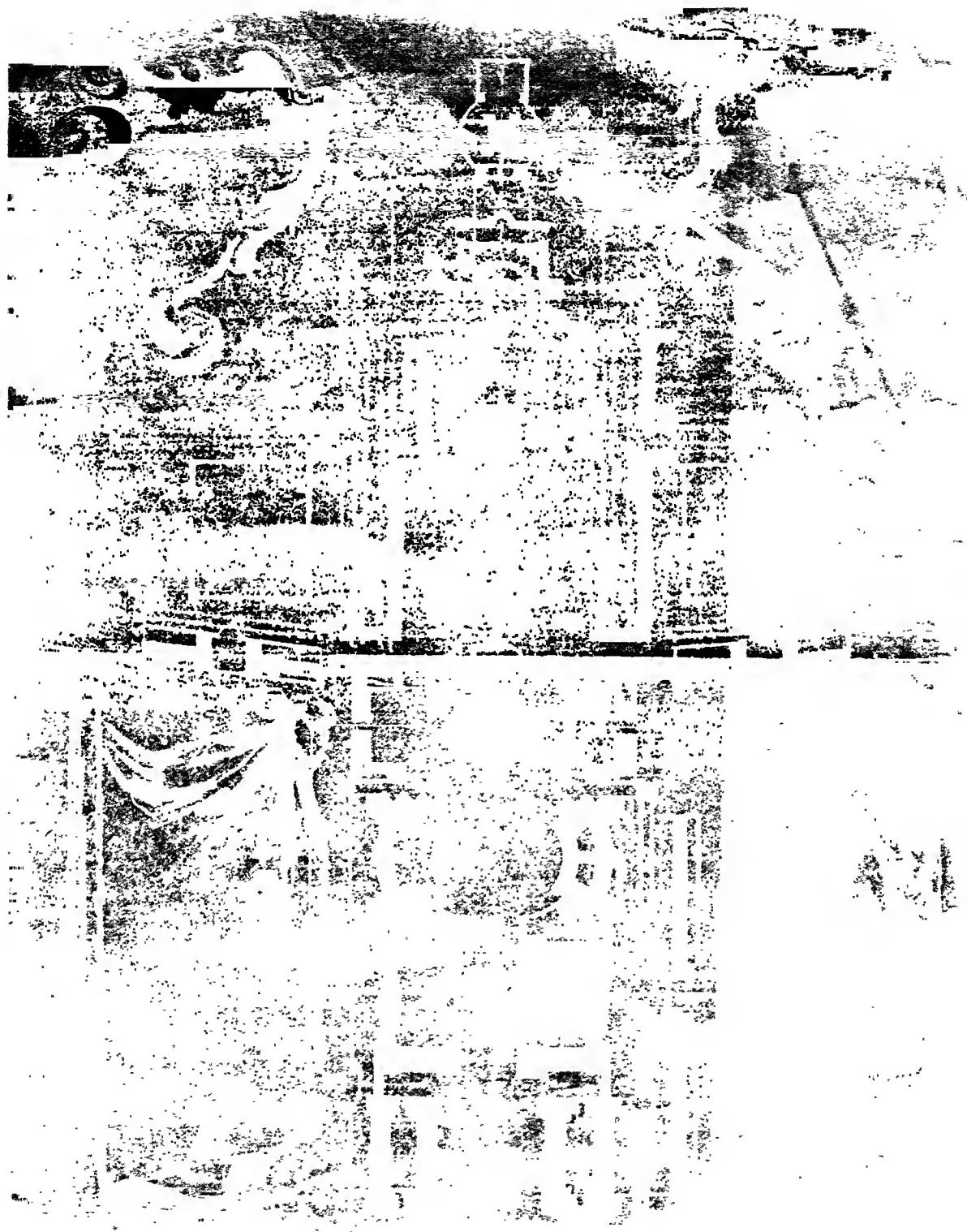
Aquatint by Pugin I. Rowlandson. (Lent by Messrs. B. T. Batsford, Ltd.)



THE STEEPLE OF ST. BRIDE'S, FLEET STREET

Engraving by Kip. (Lent by Messrs. B. T. Batsford, Ltd.)

R.I.B.A. Exhibition



R.I.B.A. Exhibition

GREENWICH HOSPITAL, SCHEME FOR LAY-OUT

Probably an original drawing by Sir Christopher Wren. (Lent by the Director of Greenwich Hospital)

SIR CHRISTOPHER WREN BICENTENARY

delight the like of which it is hard to parallel in any city of the world, and the varied adventure in dome and vault treatment of the interiors is scarcely less fascinating; while the loving care which Wren lavished upon the enrichment of pulpits and fonts and altars is at least hinted at by some well-chosen examples.

We come last to the remarkable collection of exhibits which bring before us Wren's person and way of life. We can trace him in the water-colours lent by Miss Phillimore and Mr. E. H. Fitchew from his birthplace, at East Knoyle Rectory (93), to the house where he died at Hampton Court (96) and his tomb in the crypt of St. Paul's (98). We can visualise him on an occasion of state in his waistcoat of blue and white flowered velvet damask (lent by the Dean and Chapter of St. Paul's (141)), or in more workaday clothes, wielding his six-foot rod, an inch thick and circular in section, painted green and black, and inscribed, "The Surveyor of the Fabrick," or his 15-inch brass graduated compasses (142, lent by the Royal Society). We can see the guinea he gave to a little grandchild, and his handwriting in letters, reports, receipts and legal documents. Some of the men and women with whom he was thrown in contact—such as the sovereigns and prelates he worked for—his friends and the artists who worked under him, are also represented by portraits or handwriting.

Finally, we can judge of his personal appearance at various periods of his life in the work of several contemporary artists. Grinling Gibbons's boxwood relief (59) is plainly uninspired, and goes to confirm the view that he did well to turn from portraiture and give himself to the decorative carving in which he was unrivalled. A replica of the bust by E. H. Pearce, the original of which is in the Ashmolean, shows Wren in the vigour of early middle life, with the flowing hair or low full wig of the early years of the Restoration. Two copies of a mezzotint after the painting of Sir Godfrey Kneller (60 and 77) represent him as wearing the soaring peruke of the close of the century, and still in the full maturity of his powers, though age is creeping on. The features are finely modelled, the expression benignant, the glance penetrating. The general aspect does not belie either the kindness and humour or the powerful and many-sided intellect of the great master at whose feet we have been laying our tribute of affectionate veneration.

RECORDS OF WREN AT THE RECORD OFFICE, CHANCERY LANE.

By ARTHUR T. BOLTON, F.S.A.,
Curator of Sir John Soane's Museum.

At the Record Office in the museum which occupies the site of the old chapel of the Rolls, and is open 2-4 p.m., are a few records of Sir Christopher Wren now on view.

In a glazed case is a minute book with an open page headed :

" Whitehall Treasury Chamber, 13 January 1669.

" Present : Lord Delamer, Lord Godolphin, Sir Henry Capell, Mr. Hampden.

" The Surveyor-General and Controller of the Works called in, and their reports read.

" The Surveyor objects against Mr. Latham (in the Comptroller's Certificate) for a madman, and says the work has stood a new trial in a hurrycane," etc.

The passage is part of the dispute between Talman and Wren, whom he was trying to supersede by alleging various defects in the work at Hampton Court. He says *inter alia* that he could put his fingers into the cracks, and if they are not now evident that is because they have been stopped. The Lords, no doubt considerably bored, seem to have fastened on that as something definite, and adjourned the matter for certain impartial persons to find and determine.

Talman seems to have objection to some iron used, and Wren's reply was that "things precautionary ought not be objected to." If he had got hold of, and really never himself used, the bad practice of bonding stone with iron ties, he had certainly struck on a point which has proved of great consequence, for the rusting and bursting of these ties have been a serious trouble in seventeenth and eighteenth century buildings.

The end was that Talman was dismissed, and went off to build Chatsworth, and prove there his inferiority to Wren as a classical architect.

Another paper in the same case is a certificate of 1683, by Wren, for the payment to Mr. Houseman of £170, making £230 in all, for painting work at the Chapel of St. James.

There is also Wren's report on the damage done to Evelyn's house, by the Czar Peter the Great, dated 1698.

A small plan shows a scheme to adapt the Cockpit, Westminster, for use as a State paper office, 1706-7. Also a report signed by Wren on the repair of Hyde Park Road, 23 August 1711.

In an upright glazed stand is a Wren letter, 19 September 1689, respecting allowances for buildings at Hampton Court and Kensington.

£1,000 is wanted for the former, and £500 for the latter, with a further £3,000 for workmen and materials for St. James's, Whitehall, public passings belonging to His Majesty, and his progress to Newmarket and moneys due since his accession. A hint being added that other offices appear to have had their arrears paid up.

The documents are chiefly interesting as showing that even Wren was not all day "designing St. Paul's," but had to put in a good deal of time on sufficiently dry matters of routine and daily cares evidently not always free from friction.

His disarming modesty and gentle patience must have been invaluable to him in these daily affairs.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

EXHIBITION AT OXFORD

By W. HENRY WARD, M.A. [F.]

Wren's own university is not forgetful of one of the greatest of her *alumni*. The memory of his many-sided genius is pleasantly recorded in the little exhibition gathered together out of its own treasures by the Bodleian Library. The literary traditions of the Wren family are recalled by a copy of "*Φυσιπονομαχία*," a Latin comedy by his father, the Rev. Christopher Wren, and one of his grandson's *Parentalia*, as well as by his own signature in a seventeenth-century register of the readers in Bodley's Library, and by a few sample volumes from his own shelves. As a mathematician he appears as solving a problem propounded by Pascal and setting another as a counter-challenge to French mathematicians. The natural philosopher is reflected in a letter dated from All Souls, 26 February 1656, printed in the *Reformed Commonwealth of Bees*, describing his observations of bees at work in a transparent hive of his own invention.

His activities as a practical architect are illustrated by his MS., "Advise to the Reverend the Deane and Chapter of St. Paules concerning the ruines of that Cathedral," and the original letter to the Savilian Professor at Oxford on the repairs to the Divinity School. These were carried out in exact accordance with his report, as may be seen at any time, and more particularly at the present moment, when the foundations of one of the buttresses have been laid bare under the superintendence of Mr. E. P. Warren, and prove to comprise the "ramping arches" recommended.

Among the most interesting of the exhibits is the priced catalogue of the sale of his own and his son's library in 1748, on the latter's death, since it brings out very clearly the wide range of his interests, composed as it was of works on theology, history, antiquities, numismatics, biography, travel, mathematics, astronomy, botany and biology. *Belles-lettres* are, perhaps, less prominent; but it is interesting to find in this department a copy of his old chief Sir John Denham's poems. Architecture naturally filled a large place on his shelves, and was represented by most of the principal Italian, French and English works, including Pozzo's *Perspective*, to which Wren was a subscriber, and ranging from Alberti to Kent's *Vitrivius Britannicus*, which sold for £5, the highest price fetched by an architectural book.

The "cabinet" of medals, gems and sculpture, with most of the prints and drawings, was dispersed the following year; and the list contains many items which to-day would be priceless. What, for example, would one not give for lot 35, "Sixty-six drawings of Hampton Court pasted in a book," which fetched £3 6s., or lot 45, "One hundred and fifty drawings and sketches of Winchester Palace, and miscellaneous architecture, with a parcel of papers relating to the subject, in a portfolio," which were knocked down for £2 12s. to the Duke of Argyll? This nobleman also secured for two guineas a "long high-finished drawing of an intended new Palace at Westminster." One wonders if they are still in the ducal library.



THE EAST FRONT of the LIBRARY of TRINITY COLLEGE in the UNIVERSITY of CAMBRIDGE.

R I B A. Exhibition | EAST FRONT OF THE LIBRARY OF TRINITY COLLEGE

(Lent by Mr. W. H. Ward)

The Bicentenary Commemoration Visits

BY PERCY W. LOVELL, B.A. [A.]

Of the Wren Bicentenary Commemoration visits (or pilgrimages) it is difficult to write briefly, for they were all so interesting. Jointly organised by the Royal Institute of British Architects, the London Society and the Selborne Society, they were very well attended; and although one or two of the outdoor gatherings were also attended by rain, it was fortunate that, in spite of the early season of the year, the most important outdoor meetings were favoured by brilliantly fine afternoons.

Time and the necessity for choosing buildings in reasonable proximity permitted of only a small number of the City churches being visited; but on Tuesday, 20 February, three of those "featuring" domes were seen—that is to say, St. Mary Abchurch and St. Stephen, Walbrook, two of the most beautiful examples, together with St. Swithin, Cannon Street, which is crowned by an eight-sided dome rising direct from the main cornice without the intervention of any arches at all.

Domestic architecture in the City that can safely be attributed to Wren is not too abundant, but with the help of "period" houses a varied programme was arranged on Wednesday, 21 February, including the merchant's house in Warwick Court, the only example remaining of the type described in the rebuilding Act after the Great Fire as of "the greatest bigness"; and Old Pewterers' Hall in Lime Street, attributed (by the various painted shields on the walls) to Sir Christopher Wren. Whoever built it and however it may have been altered, it still forms a curious and little known survival of Old London. Next (by courtesy of Canon Alexander) the party saw No. 2 Amen Court. Although much altered, there is direct evidence that this and the adjoining houses were erected by the Dean and Chapter soon after the Great Fire, and Wren must have been consulted. He is also said to have occupied No. 2, and the dining-room is a particularly finely proportioned apartment. Finally, at the Temple, under the guidance of Sir Banister Fletcher, some genuine Wren work was run to earth, for the Temple suffered from fire on more than one occasion after the Great Fire itself, and Wren was employed on its reconstruction. The columns under the Cloister here appear really to do their work and not to stop three inches short of the ceiling, as tradition says that similar ones do at Windsor.

Chelsea Hospital, which Mr. Macartney (during his lecture in February to the London Society) highly praised for its beauty and simplicity, provided one of the most successful visits, for Friday was fine and sunny and a very large party assembled to hear the account of the buildings and possessions of the Hospital given there by the Lieutenant-Governor, General Bird.

On Saturday, 24 February, there were rival attrac-

tions—Hampton Court and St. Paul's. At the Cathedral we were met by Mr. Macartney, and a party of over a hundred heard from him much valuable comment on the wonderful fabric entrusted to his care. Then, divided into smaller groups, the crypt, galleries and Library were visited, not forgetting Wren's model of the "rejected design," as it is called, which at one time was to be seen at South Kensington, where it was so little appreciated that the dome was removed and replaced upside down—so as to occupy rather less space, presumably. St. Paul's being required for the service at 4 o'clock, the Deanery was then invaded, under the guidance of Mrs. Inge.

At Hampton Court a smaller but equally enthusiastic party was entertained in the Oak Room by Sir Frank Baines, who gave a most attractive account of the history of the site of the Palace and the difficulties encountered by Wren in designing and erecting the famous Fountain Court. Sir Frank pointed out also how the Chestnut Avenue in Bushy Park was laid out by Wren as part of a great scheme (fortunately never executed) for a new approach to the Great Hall, which would have demolished the whole of the Kitchen block; and he reminded us that, in erecting the Fountain Court, Wren swept away what must have been one of the most magnificent examples of Tudor architecture in this country—namely, the State Rooms erected by Henry VIII. Wren's State Apartments were then visited; and although much that was of interest in the Tudor Palace had to be omitted, after all we were there to see the work of Wren. The ingenious planning of the Fountain Court rendered necessary because the main avenue on the east front was on a different centre line to the court itself was particularly noted; and we saw in passing Wren's own room leading off from the cloister with the monogram of his initials above the entrance. The value of Wren's wonderful planning and the manner in which his work has blended with that of the Tudor portions of the Palace were particularly referred to.

By this time 5 o'clock had struck on the turret clock, so an adjournment was made for tea; and following that the Old Court House on Hampton Green was visited, where in his later years Wren lived, and where he died on 25 February 1723. Here Mr. Ernest Law gave a short account of the events which led to Wren's retiring to this house, and showed us a plan of the building as it was in his time. Mr. Law certainly voiced the thoughts of everybody when he said that it gave the very greatest satisfaction to all admirers of Wren to see the old house in the hands of one who so evidently appreciated its associations. Mr. Lamplugh informed us he was opening the house to visitors every afternoon during the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

week, and that if members of the various societies cared to see the house at some other time he would be very glad to show it to them, provided they wrote and made arrangements with him beforehand.

The visit to Oxford had to be abandoned owing to the small number of applications received, which was occasioned partly by the early season of the year, and partly perhaps by the rather short notice of the visit ; but it is hoped to arrange it during the summer. Cambridge, however, attracted more attention, which is not altogether surprising, as the university town contains Wren's earliest completed building of importance—the chapel of Pembroke College (which is of particular interest for the evidence it affords of the ideas that he afterwards developed)—as well as one of his masterpieces, the library of Trinity. Both these buildings were fully described—the library by Mr. H. M. Fletcher, and the chapel by Mr. Maurice E. Webb.

On Wednesday afternoon, 28 February, visits to the City churches were resumed, the three selected being the two designed by Wren in the Gothic style, with St. Mary-le-Bow introduced partly, of course, on account of its magnificent steeple, but also by way of contrast to the other two. Why Wren built St. Alban, Wood Street, in the Gothic style is a matter of conjecture ; but there is a good deal to be said for the theory that the earlier church (designed by Inigo Jones) was not entirely destroyed by the Fire, and Wren may have been able to incorporate some of it in his building. With St. Mary Aldermanry the case is different, because money was left with the express stipulation that the style of the earlier building should be followed. It seems extremely doubtful whether the elaborate fan vault in plaster, with its cup-shaped domes, was copied from the earlier church ; for one thing, presumably there were no records of it, and, as Mr. Birch suggests, the church was more likely to have had a wooden roof, possibly with fan-shaped springers on the walls.

Thursday, 1 March, was devoted to Kensington Palace, which attracted a large number of visitors, partly, no doubt, because the building has been closed for so many years. The Office of Works was represented by Mr. Ingleson C. Goodison, whose unrivalled knowledge of the building and the styles of the various craftsmen employed by Wren made the afternoon exceptionally interesting. Mr. Goodison referred to the fact that complete plans had recently been discovered showing the building about the year 1716. We understand these are not the only ones of that date in existence, but they may be of assistance in throwing light on the actual position of the original Nottingham House, as they show the buildings pulled down by Kent some years later. It is just possible that these may have included Nottingham House itself, and that Wren had left it intact while enveloping it with the new wings of his quadrangle.

On Friday, 2 March, three more City churches were visited, this time of the very large type that may be called Gothic plans in classic clothing. St. Bride, Fleet Street, with the steeple that Wren showed first on the top of the dome in his Warrant design for St. Paul's; St. Andrew, Holborn, one of, if not quite, the largest that he built, and interesting also as showing how much of the mediæval work he incorporated ; and, lastly, Christ Church, Newgate Street, as austere an interior as St. Bride's is cheerful, but with a more satisfactory treatment of the columns in relation to the gallery level.

On Saturday, 3 March, alternative visits were arranged, as in the previous week, the two selected being Greenwich Hospital and a further series of three churches, representing the spires grouped round the great dome, and presumably designed by Wren with a view to the proximity of the great mass of the Cathedral.

At Greenwich we were under the charge of Mr. Agutter, the resident engineer, and Mr. Arthur Sharpe, the President of the Greenwich Antiquarian Society. After perambulating the buildings we were entertained at tea by the Royal Naval College in the Mess—that is, the crypt or lower hall, in itself a splendid room, beneath the Painted Chamber.

Mr. Sharpe later gave a short account of the part that Wren played in the erection of the Hospital, drawing attention to several points that may not have been generally realised. For one thing, the lay-out of the buildings was practically settled by Queen Mary, who wished Inigo Jones's "Queen's House" to be retained, and, in the grant of land for the purposes of the Hospital, expressly forbade the erection of any buildings on the central strip, thus preserving the view of the Queen's House from the river. The breadth of this strip must have suggested the position of the great colonnades designed by Wren.

The building erected by John Webb on the water front also gave an obvious lead for the position of the block on this front built by Wren—viz., the Queen Anne building. When he came on the scene Webb's building was partly glazed, while the remainder of the windows were bricked up and the place used as a powder store. Wren took out all the floors and casement windows and reconstructed the interior, inserting sash windows and new floors. This building was finished first, and work then proceeded on the block immediately to the south—King William's block—which was finished about 1702 or soon after. This fact is important because Vanbrugh is often credited with having done a good deal of the work on this building. All he did was to finish some of the internal work about 1716. The west elevation of King William's block is entirely due to Wren, and agrees exactly with his model, which is to be seen in the Museum in the Georgian portion of King Charles's building.

SIR CHRISTOPHER WREN BICENTENARY

In these brief notes no attempt has been made to refer to any of the main features of the buildings, which must be well known to the majority of readers of the Institute JOURNAL. Only where the information appeared to be not generally realised have we noted it in any detail.

The general impression left on the mind after the fortnight's expeditions was that Wren in nearly all this work was fettered by some conditions arising from the buildings (or remains of them) already on his sites, and that his genius showed itself in the masterly manner in which he overcame the infinite variety of problems with which he was faced.

Visit to Cambridge

BY MAURICE E. WEBB [F.], D.S.O.

On Tuesday, 27 February, a considerable number of members of the R.I.B.A., the London Society, and the Selborne Society visited Cambridge to study Wren's work at Emmanuel, Trinity and Pembroke.

The famous library at Trinity, its history and planning, was described by Mr. H. M. Fletcher, who, after reading Wren's original letter describing the design, pointed out that, as the building was carried out almost exactly in accordance with the description contained in the letter and the plans accompanying it, little more could be added. He did, however, add some very interesting details of recent research work upon the construction of the building which, with the aid of drawings made by the resident Clerk of Works, has revealed once more the great thought which Wren devoted to problems of this kind. No doubt Mr. Fletcher will offer these drawings for publication in the JOURNAL when they are completed. After this instructive visit to Trinity we went on to Pembroke to see Wren's first work. At the kind invitation of the Master and Fellows of Pembroke College, we took tea with them and a representative gathering of Cambridge residents in the College Hall (designed by the father of our President), and afterwards spent a very memorable hour in the Chapel listening to a religious concert (arranged by the Dean) of contemporary music by Purcell and others. The authorities of Pembroke, the possessors of Wren's first work, and those of St. Paul's, who possess his greatest, both chose the same way of commemorating our greatest architect. Those of us who were present were, I am sure, convinced that it was a very right and proper way, and we are grateful to the Master and Fellows of Pembroke for extending their invitation beyond the boundaries of Cambridge to include those of our party who might wish to join them in the Chapel on this occasion.

Commemoration Banquet

A large and distinguished company of guests and members of the Institute were present at the Banquet given in commemoration of Sir Christopher Wren on Monday evening, the 26 February, at the Hotel Victoria.

The President in proposing the health of the King said that Sir Christopher Wren had lived under seven rulers—five kings, one queen and one Protector. If he had lived through the seven succeeding reigns he would have been with us to-day, as a subject of that gracious Gentleman whom the Royal Institute was proud to own as its patron. Perhaps it would have been well for Wren had he met the genial encouragement that he would have received in the present day.

The toast was drunk with the singing of "God Save the King."

After the dinner the President, Sir Reginald Blomfield and Mr. Mervyn Macartney delivered addresses on Sir Christopher Wren instead of the usual toasts (see pp. 261, 264, and 267).

In his opening remarks the President acknowledged the indebtedness of the Institute to Mr. Henry M. Fletcher, for his work in connection with the Bicentenary arrangements. He also spoke of the splendid way in which the allied societies had rallied around them. Speaking in French, he referred in graceful terms to the presence of M. de Saint-Maurice, Membre du Conseil de la Société des Architectes Diplômés par le Gouvernement, and of M. Augustin Rey, Société Centrale des Architectes Français. M. de Saint-Maurice replied. Lord Balfour then proposed the health of the President, which was toasted with much enthusiasm.

GUESTS AND MEMBERS AT THE BANQUET.

Mr. Paul Waterhouse, President of the Royal Institute of British Architects (in the chair); His Grace the Archbishop of Canterbury; the Rt. Hon. the Earl of Crawford and Balcarres, K.T., P.C.; the Rt. Hon. the Earl of Balfour, K.G., P.C., O.M.; the Rt. Hon. Lord Askwith, K.C.B., K.C., D.C.L.; the Rt. Hon. the Lord Mayor of London; Sir Aston Webb, C.B., K.C.V.O., President of the Royal Academy; M. de Saint-Maurice, Membre du Conseil de la Société des Architectes Diplômés par le Gouvernement; The Rt. Hon. Sir Joseph Cook, G.C.M.G., P.C.; Sir Donald MacAlister, K.C.B., President of the General Medical Council; Sir L. A. Selby-Bigge, Bart., K.C.B.; Sir Wm. Hale-White, K.B.E., M.D., President of the Royal Society of Medicine; Sir A. A. Bowlby, K.C.B., K.C.M.G., President of the Royal College of Surgeons; Sir Cecil Harcourt Smith, C.V.O., LL.D.; Sir Reginald Blomfield, R.A., Litt.D.; M. Augustin Rey, Société Centrale des Architectes Français; Professor Sir Arthur Schuster, F.R.S., LL.D., The University of London; Sir David Murray, R.A.; Sir Charles Oman, K.B.E., M.P.; Sir Arthur S. Cope, R.A.; Sir W. Arbuthnot Lane, C.B.; Sir John J. Burnet, A.R.A., R.S.A.; Sir John MacAlister, O.B.E.; Sir Lawrence Weaver, K.B.E.; the Very Rev. W. R.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Inge, D.D., Dean of St. Paul's; the Rev. Canon S. A. Alexander, M.A.; Mr. J. E. K. Studd, O.B.E., Sheriff of London; Dr. F. W. Pember, D.C.L., Warden of All Souls' College, Oxford; Mr. Arthur Gray, M.A., Master of Jesus College, Cambridge; Mr. H. J. Waring, M.S., B.Sc., F.R.C.S., Vice-Chancellor, University of London; Mr. F. R. Anderton, Chairman of the London County Council; Mr. S. H. M. Killik, J.P., Sheriff of London; Mr. W. H. Nicholls, President of the National Federation of Building Trades Employers; Mr. Alfred W. S. Cross, Vice-President, R.I.B.A.; Mr. H. D. Searles Wood, Vice-President, R.I.B.A.; Mr. Chas H. Heathcote, Vice-President, R.I.B.A.; Mr. Arthur Keen, Hon. Secretary, R.I.B.A.; Mr. E. Fiander Etchells, President of the Institution of Structural Engineers; Mr. Wm. Cash, President of the Institute of Chartered Accountants; Mr. H. V. Lanchester, President of the Town Planning Institute; Mr. J. Storrs, President of the Institute of Builders; Mr. J. Wells, M.A., Warden of Wadham College, Oxford; Sir Herbert Warren, K.C.V.O., President of Magdalen College, Oxford; Mr. Edward P. Warren, F.S.A., President, Berks, Bucks and Oxon Architectural Association; Mr. E. J. Partridge, President of the Society of Architects; Mr. F. Gill, President of the Institution of Electrical Engineers; Mr. F. J. Walton, President of the London Master Builders and Allied Industries Association; Mr. Lawrence A. Turner, F.S.A., Past Master of the Art Workers' Guild; Mr. G. J. Skipper, The Norfolk and Norwich Association of Architects; Mr. J. Alfred Gotch, F.S.A., President of the Northamptonshire Association of Architects; Professor H. H. Turner, President of the Royal Astronomical Society; Mr. Mervyn Macartney, F.S.A., Surveyor to the Fabric of St. Paul's Cathedral; Mr. S. M. Young, F.S.I., The Worshipful Company of Masons; Major C. B. Flockton, The Sheffield Society of Architects; Mr. John Murray, Nat. Fed. Building Trades Operatives (London District Council); Mr. H. Denston Funnell, The Architects' and Surveyors' Assistants' Professional Union; Mr. S. Hurst Seager, The New Zealand Institute of Architects; Dr. F. G. Dawtrey Drewitt, M.D., The Royal College of Physicians; Mr. J. Mewburn Levien, The Royal Philharmonic Society; Major Richard Rigg, O.B.E., The London and Middlesex Archaeological Society; Mr. Edgar Armitage, The Junior Art Workers' Guild; Mr. W. E. Riley, R.B.A., The Official Architects' Association; Mr. T. Butler Wilson, The Leeds and West Yorkshire Architectural Society; Major Hubert C. Corlette, O.B.E., R.B.C., The New South Wales Institute of Architects; Mr. C. McArthur Butler, Secretary, The Society of Architects; Mr. F. R. Yerbury, Secretary, The Architectural Association; Mr. W. R. M. Lamb, M.A., Secretary, The Royal Academy; Mr. A. Goddard, C.B.E., Secretary, The Surveyors' Institution; Mr. G. Topham Forrest, Architect to the London County Council; Mr. Stanley Hamp, President of the Architectural Association; Mr. Rupert Savage, President of the Birmingham Architectural Association; Mr. T. R. Milburn, President of the Northern Architectural Association; Mr. Percy Thomas, O.B.E., President of the South Wales Institute of Architects; Mr. Sydney Perks (City Surveyor), Mr. Ian MacAlister (Secretary R.I.B.A.).

Mr. Maurice B. Adams, Prof. S. D. Adshead, Mr. H. W. Allardyce, Canon S. A. Alexander, Mr. F. R. Anderton, Mr. W. H. Ansell, *The Architect's Journal*, *The Architect*, Mr. H. V. Ashley, Mr. F. G. Baker, Mr. Herbert Baker, Mr. E. C. Beaumont, Mr. E. E. Beaumont, Mr. F. Adams Beck, Mr. T. P. Bennett, Mr. F. Cavendish Bentinck, Mr. Arthur Bentley, Mr. J. A. Bessant, Mr. A. L. Binns, Dr. W. A. Blackstone, Mr. G. R. Blanco-White, Mr. H. Cecil Booth, Sir A. A. Bowlby,

Mr. H. W. Brittan, Mr. H. T. Buckland, Mr. G. C. Burrows, Mr. R. A. Burrows, Mr. D. Y. Cameron, Mr. Wm. Cash, Mr. Walter Cave, *The Central News*, Mr. Harold B. Challen, Mr. J. H. Chaundler, Mr. John Clack, Mr. C. F. Clark, Mr. C. S. Clark, Mr. Arthur Clarke, Mr. Max Clarke, Mr. Cecil Clay, Mr. G. Scott Cockrill, Mr. E. P. Coleman, Mr. A. O. Collard, Mr. John Collard, Mr. A. F. Collins, Mr. E. Stone Collins, Mr. L. H. C. Collins, Mr. George Corderoy, Major Hubert C. Corlette, Mr. L. Cope Cornford, Mr. A. G. Cross, Mr. Arthur Crow, Mr. L. A. Culliford, Mr. Harold Davey, Mr. W. R. Davidge, Mr. T. Raffles Davison, Mr. E. Guy Dawber, Mr. C. F. Dawson, Mr. C. J. Dawson, Mr. H. H. Dawson, Mr. Matthew J. Dawson, Mr. Reid Dick, Mr. W. F. Dickinson, Mr. Rudolf Dircks, Mr. C. C. T. Doll, Mr. M. H. C. Doll, Mr. C. Fitzroy Doll, Mr. Harry Dollar, Mr. Walter M. Epps, Mr. H. Godfrey Evans, Mr. A. W. Field, Mr. T. P. Figgis, Mr. Gordon Figgis, Mr. H. M. Fletcher, Major C. B. Flockton, Mr. G. Topham Forrest, Mr. Walter Ford, Mr. Dudley Forsyth, Mr. Percival Fraser, Mr. J. Harold Gibbons, Mr. H. B. S. Gibbs, Mr. C. Lovett Gill, Mr. R. C. Gleed, Mr. P. F. Gleed, Mr. Walter H. Godfrey, Mr. F. T. W. Goldsmith, Sir George Leveson Gower, Mr. Lionel U. Grace, Mr. Arthur Gray, Mr. A. W. Green, Mr. W. H. Gunton, Mr. Edwin T. Hall, Mr. E. Stanley Hall, Lt.-Col. H. Geo. Handover, Mr. Derek Hannen, Mr. H. Hargreaves, Mr. J. Stockdale Harrison, Mr. Everard J. Haynes, Mr. A. J. Healey, Mr. Joseph Hill, Mr. F. R. Hiorns, Mr. P. Morley Horder, Mr. M. L. Horn, Mr. E. J. Horniman, Mr. Edward Hudson, Prof. Selwyn Image, Alderman D. T. Jackson, Mr. F. Ernest Jackson, Sir John Jarvis, Mr. Francis Jones, Mr. G. Howard Jones, Mr. Ivor P. Jones, Alderman H. V. Kenyon, Mr. Ralph Knott, Mr. Ernest Law, Mr. Walter Lawrence, Mr. Herbert A. Legge, Capt. W. J. Lindsay-Forbes, Mr. John Llewellyn, Sir Robert Lorimer, Mr. W. H. Ludlow, Mr. Donald A. MacAlister, Mr. Fred May, Mr. F. M. May, Mr. Edward Maufe, Mr. A. R. Mayston, Capt. W. N. McClean, Mr. Percy W. Meredith, Mr. C. Williamson Milne, Dr. Ellis H. Minns, Mr. Gerald Moira, Mr. John Murray, Mr. W. A. Nelson, Mr. F. Winton Newman, Mr. W. G. Newton, Mr. Harold Newton, Mr. D. Barclay Niven, Mr. F. G. Pain, Mr. James Paxton, Mr. Walter Peacock, Mr. Wm. G. Perring, Mr. Sydney Perks, Prof. A. Beresford Pite, Mr. W. T. Plume, Mr. Henry Poole, Mr. R. Sidney Powell, Mr. G. P. Powis, *The Press Association*, Mr. Stanley C. Ramsey, Mr. A. Gordon Raymond, Mr. W. Leslie Raymond, Mr. Hugh W. Reeves, Mr. J. Campbell Reid, Mr. W. B. Reidie, Mr. R. L. Roberts, Mr. H. Whiteman Rising, Mr. Harold S. Rogers, Mr. Frank Russell, Mr. H. F. Russell, Mr. F. G. Rye, Mr. Henry A. Saul, Mr. Rupert Savage, Mr. L. H. Savile, Mr. C. M. Oldrid Scott, Mr. T. G. Scott, Mr. W. Gillbee Scott, Mr. W. W. Scott-Moncrieff, Mr. Herbert Shepherd, Mr. W. E. Shepherd, Mr. Einar Skjold, Mr. C. D. Spragg, Mr. J. C. Squire, Mr. W. P. Steel, Mr. William Stewart, Mr. Arthur Stratton, Mr. William Street, Mr. Sheriff Studd, Mr. T. S. Tait, Mr. Lawrence E. Tanner, Mr. Michael Tapper, Mr. Walter J. Tapper, Mr. Bateman Brown Tarring, Mr. F. W. Tarring, Mr. Sydney Tatchell, Mr. Andrew T. Taylor, Sir A. Brumwell Thomas, Capt. B. S. Townroe, Mr. H. J. Venning, Mr. Wm. Walcot, Mr. W. H. Ward, Mr. Spencer Watson, Major Maurice Webb, Mr. Herbert A. Welch, Mr. Arthur Welford, Mr. Stephen Wilkinson, Sir Frederick Willis, Mr. F. R. Gould Wills, Mr. T. Butler Wilson, Mr. Geoffrey C. Wilson, Mr. George E. Withers, Mr. John W. Wood, Mr. Edgar H. Woodcock, Mr. Frank Woodward, Mr. Wm. Woodward, Mr. F. R. Yerbury, Mr. Clyde Young, Mr. H. Young.

SIR CHRISTOPHER WREN BICENTENARY

Wren's Attitude of Mind

BY W. H. ANSELL [A.]

The high quality of the articles which have recently appeared in both the professional and non-professional press, dealing with Wren's life, work and influence, has been remarkable. One of the most notable of these was the unsigned leading article which was published in *The Times Literary Supplement* of February 22nd. Written, as it necessarily was, for a wide general public, rather than for a more restricted circle of architects and students, it yet deals with matters far more significant than mere biographical detail. No less a subject than Wren's attitude of mind towards architecture in general and his own work in particular is discussed ; the quotations of Wren and the conclusions of the writer of the article are alike worthy of the serious study of every architect of our own day.

There are those who find difficulty in understanding how Wren could design and carry through his masterpieces with so meagre an amount of recognisable architectural training as could have been possessed by him in 1662 when he accepted the position of Assistant to the Surveyor-General. With never a visit to Italy to his account, nor even, at that time, to France, his early work is, nevertheless, full of distinction, while after the Paris visit his power of design attained at once its full assurance and maturity.

A similar and greater difficulty, touching a greater than Wren, has resulted in the phantasm of the theory of the Baconian authorship of Shakespeare's plays. Happily, not even the most unstable mentality among the substitutists can find the least ground for suggesting any divided authorship for Wren's buildings. The solution must be looked for in the man himself.

It seems clear that Wren was profoundly interested in building as building, before he was concerned with either "the good Roman" or any other manner of architecture.

"The project of building is as natural to mankind as to the birds," he said, and, to the last, architecture to him was "noble living building, not a compilation of style by those taking their measures from antiquity."

Wren's aphorism, "Architecture aims at eternity ; and therefore is the only thing incapable of modes and fashions in its principles," shows this clearly, while his comment on his visit to France is still more illuminating. He wrote, "The Louvre for a while was my daily object, where no less than a thousand hands are constantly employ'd in the Works ; some in laying mighty foundations, some in raising the Stories, Columns, Entablements, etc., with vast Stones by great and useful Engines ; others in Carving, Inlaying of Marbles, Plastering, Painting, Gilding, etc. Which altogether make a School of Architecture, the best, probably, at this day in Europe."

A School of Architecture. This, then, was Wren's ideal Architectural School, on the works, among the foundations, the vast stones, the great and useful engines. That he was concerned, too, with design is shown by his statement that he would have given his skin for Bernini's Design of the Louvre.

To quote the *Times* article again. "Wren was certainly interested in the Roman forms which he borrowed, and probably thought them more civilised than others ; but he quite clearly expresses the view that this 'ornamental' part of architecture was a changing factor subject to the taste of the age. The 'geometrical' (structural) part, however, was the essential basis of the art and of universal validity."

In his building Wren was an experimenter and an individualist ; with such a brain as his he could scarce be otherwise. But in his expressive form Wren was no seeker after individuality. The good Roman manner was to him the expression of the "gust of the age," and the last thing he would think of would be self-expression in architectural form. No academic rules, certainly, were allowed to interfere with the joyousness of his building, the spires of the City churches are sufficient evidence of that, but his columns, when used, are reasonable in proportion, his cornices are distinctly Roman cornices and not mere exercises in banded stone.

This article upon an article may well be concluded by a further quotation from the anonymous writer :—

"Well would it be if modern architects would return with Wren to an experimental basis for their art, rather than look on Wren's own results as another variety of 'style' to be copied."

St. Paul's Roof Timber from Welbeck

The following interesting letter from the Duke of Portland, with the copy of Wren's letter, was published in *The Times* on 27 February :—

SIR,—In view of the widespread interest that must have been evoked by the able article on Sir Christopher Wren written by Sir Aston Webb and published in your issue of yesterday, it occurs to me that perhaps you may not think it inopportune if I send to you a copy of a letter written by Sir Christopher in the year 1695 to the steward of my ancestor, John Holles, Duke of Newcastle, who then resided at Welbeck.

I have reason to believe that the oaks which Sir Christopher desired to have felled were then growing in a wood, long known as the Wilderness, close to this house. Some of the trees of that wood (which was part of Sherwood Forest) still remain, and amongst them is the immense stump of the Greendale Oak, through which a coach with six horses was driven in 1727, when Welbeck was the property of the Duke of Newcastle's son-in-law, Edward Harley, second Earl of Oxford.

I may add that there is at Welbeck a reputed portrait of Sir Christopher Wren, attributed to Gascar. He is repre-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

sented at whole length, holding in his left hand a drawing of the elevation of the *façade* of St. Paul's, while in the background on the one side there is a lurid sky denoting the burning of the City, and on the other there is a bust of King Charles II.

I am, Sir, your obedient servant,

PORTLAND.

Welbeck Abbey, Worksop, Notts.

25 February.

For Mr. Richard Neale,
Steward to His Grace the Duke of Newcastle,
at Welbeck.

Lond : April 4th, 1695.

Sir,—Having in my Letter of June 23, 1693, signified to you a particular of all the scantlings of the Timber wee might use in the roofof St. Paules, that His Grace's noble benefaction might be as usefull as may be to the worke, and understanding that what is already designed is none of the Great beams, w^{ch} is what wee are most sollicitous for, and being given also to understand that wee must expect this season but Ten of the great Trees, I presume once more to acquaint you with the scantlings of the great Beames to prevent mistake

47 feet long, 13 inches and 14 inches at the small end, growing timber, this scantling to hold die square as neer as can be without sap.

Mr. Longland our chiefe Carpenter will be sent down this season to take care of this concerne, & the timber brought down to Bawtry, whom I desire you to converse with in particulars w^{ch} at this distance I can hardly determine, and beseech you to present with all advantage our utmost sence of his Grace's Favour, of w^{ch} also I am very sensible as becomes

Your humble servant,

C^{ER} WREN.

The Duke of Portland wrote to *The Times* again on 3 March, sending the following extracts from the accounts of St. Paul's Cathedral, which confirm Wren's statement about the Welbeck trees given to St. Paul's by the Duke of Newcastle :—

FROM W.B. 23, PAGE 22. ACCOUNT BOOK, ST. PAUL'S CATHEDRAL.

To John Langland Carpenter being by him disbursed for stubbing sawing Butting and carrying to Bawtry and Stockwith from Welbeck, part of the 50 trees given by His Grace ye Duke of Newcastle, viz.—

for workmanship of ye first parcell of shorter lengths timber sent in ye yeare 1695 ..	7.15.1
for Land carriage of ye said Timber to Stockwith and Dues thereupon	6.10.0
for workmanship of the 10 Long Trees sent in ye yeare 1696	4. 5.6
for Labour Wood and Iron in altering ye Cutt Cart to carry ye timber	1.12.2
for carriage of ye said Trees requiring a Double Team of cattle at 20sh. per day being 20 days for water carriage from Bawtry to Stockwith ..	20. 0.0
	5. 0.0

for charges of 6 men in Loading ye timber on Mr. Freams Ketch and mending an iron chaine for passage through a yard to avoid a strait Turne in ye common road from Welbeck to Bawtry To several porters at Bawtry to unload and remove the timber	6.0
To ye Tollmaster at Struby in ye road to Bawtry For ale and other expenses at Loading ye timber in ye Wood	1.6
For post letters Northward and Southward ..	12.0
For coach hire to Nottingham and back again ..	1.8
Given to my Lords servants	2.10.0
For 12 days Expenses in the journey at 12sh. per day	10.0
	7. 4.0
	56.16.3

IN PRAISE OF PORTLAND STONE.*

By JAMES BONE.

It was through Portland stone that Wren, whose bicentenary we are celebrating, expressed his genius, and, as an artist responsive to the nature of his material, something of his greatness came from that beautiful and enduring stone that is so little considered yet is almost London itself in the memories of her visitors and in the unconscious thoughts of Londoners. How strange it is that in the articles and books on Wren hardly a word appears about Portland stone. You will look through scores of indexes without finding the name. No poet has sung of Portland stone, although great ones have sung of sofas and mice and marine engines. Yet it is a great and magical stone, the most beautiful in the world, more beautiful, I think, even than the Roman travertine, with its marmoreal quality that responds so exquisitely to wear. Portland stone seemed ordained to form the face of London, its surface so finely mirroring the fitful lights that break through her river mists, blanching in her towers and spires to a finer whiteness as the darker grow the coats of grime at the bases and sides. How those shapes come and go through the mists as you watch from Waterloo Bridge over the grey-blue Thames on a spring morning ! Who can ever forget his first vision of it all as he beheld, round the bend of the river, the apparition of the mighty fleet of Wren, with their topgallants and skysails of stone ?

The nautical simile leaps to the mind at the sight of Wren's white spires and towers, and it is appropriate, too, to the material in which Wren worked. Portland stone is a marine deposit of the Jurassic period, before Britain first at Heaven's command arose from out the azure main. Its beds are full of fossils of marine creatures, sea urchins, starfish and shells. You can see shell imprints on the freshly-cut Whit-bed stone on the top of the new Bush building, and you can see "horses'

* From the *Manchester Guardian*, by permission of the Author.

SIR CHRISTOPHER WREN BICENTENARY

heads"—as certain shell fossils are called by masons—on the weather-beaten south parapet of St. Paul's. It is a strange thought that the majesty of the capital of this sea-joined Empire should come itself from beneath the sea, and that all the stone glories of London should be stamped so secretly with the seals of the creatures of the sea. How could our poets, how could Mr. Kipling have missed such a theme?

The relations between Portland stone and the characteristic London light have been mentioned. The smoke and the wayward directions of the wind, buffeted in the confined, irregular streets of London, are other factors in the complexion of the town. The weathering of stone is affected by hundreds of chances, the arrangements and accidents of the drips, the quality of the jointing when tested by the rains, the flatness of the surface, and the eccentricities of small mouldings, as well as the prevailing wind that whitens projections and cleans every surface on which it has free play. "Portland stone," an eminent architect once said to me, "is the only stone that washes itself." His theory was that once your building is up the stone begins to gather a crust of dirt which greys down its first delicate lemon tinge; after it has accumulated a certain quantity the crust comes off by its own weight, and the air then plays on the clean stone which has thus already had a certain weathering, and the surface gradually whitens to the ashen colour that is the beauty of London. Unlike most stones, it decays by powdering off in a uniform way, so that its surface continues flat. You can see in the Strand just now the process going on in four buildings of different periods. The Bush building has the lemon tinge; Australia House, beside it, has greyed down; and the Law Courts, which is about fifty years old, has a tinge of green in its white; while Wren's St. Clement Danes has ashy whites and rich delicate blacks. The bases of nearly all London buildings where the wind has not free play soon turn black, and spires and towers soon become white, but strange pranks are played on the body of the building.

Phrases like "leprous," "piebald," and "skeleton" have been used against the London Portland stone. Certainly the milk-white quality of its lit shapes against the night sky at first have an uncanny effect on the mind. The look of London is so different from that of other cities. Manchester buildings are uniform rich black, with a delicate surface, as of adhering textile fluff, so that on some days it seems a velvet city, with black velvet buildings and white velvet clocks. Glasgow buildings darken quickly into a hard, morose quality, with smoke quietly about them. Edinburgh is a grey city, its Craighie stone and method of cutting reflecting little light, but deepening its tall dignity. Liverpool has Portland stone, but its atmosphere does not whiten and darken it, as London's does. So when a young man comes to settle in London it seems a strange, uncanny

place, and Wren's great cathedral and churches, and the long front of Chambers's Somerset House, and the many great buildings excite him much and perplex him a little. It is usually after many years that he comes to understand why London looks so dramatic, or—shall one say?—"theatrical." He is aware of something against which his reason is fighting. It is the weathering of Portland stone; the appearance of great shadows where there can be no shadows, throwing blackness up and down, and wreathing towers with girdles of black, and cutting strange shapes on flat surfaces. Mystery hovers over the city, everything is slightly falsified, almost sinister; "fair is foul and foul is fair"; there is magic about. Strangeness is allied to beauty, and that is romance. That is the final secret of Portland stone.

I have said that no poet has written about Portland stone, but that is not quite true. Henley's "madrigal in stone" for St. Bride's showed thought for the material. He must have had the right sense of it. But it was John Davidson who alone understood it, for he wrote:—

Oh, sweetheart, see! how shadowy,
Of some occult magician's rearing,
Or swung in space of heaven's grace
Dissolving, dimly reappearing,
Afloat upon ethereal tides
St. Paul's above the city rides!

THE FINE ARTS FEDERATION OF NEW YORK AND SIR CHRISTOPHER WREN.

The following letter has been received from the Fine Arts Federation of New York addressed to the President of the Institute:—

DEAR SIR,—The Fine Arts Federation of New York learns with much interest that the Royal Institute of British Architects is making arrangements for a "Commemoration Week" on the occasion of the bi-centenary of the death of Sir Christopher Wren.

The Fine Arts Federation desires to join you and your distinguished confrères in doing honour to the memory of the great Architect, and takes sincere pleasure in paying tribute to the genius of Sir Christopher Wren and his splendid achievements.

The influence of Sir Christopher Wren and his School of Architecture has been strongly felt in America, and it is with unfeigned gratification that the Fine Arts Federation expresses its deep admiration for one whose fame has in no way diminished since his death, and whose works still proclaim him the greatest of British Architects.

ARNOLD W. BRUNNER, President.
WM. LAUREL HARRIS, Secretary.

The First Exhibition of the Architecture Club

BY STANLEY C. RAMSEY [F.]

The Architecture Club—as probably most architects by this time realise—consists of architects, writers and those interested in architecture, banded together with a view to interesting the general public in modern architecture.

The present exhibition, which, by courtesy of the Duke of Westminster, is held at Grosvenor House, is an unqualified success. It consists of three sections—photographs of work executed by architects during the present century, models of these works, and models of old buildings. The photographs are for the most part large in scale and excellent in presentation; if there is any criticism to make it is that the organisers did not include the names of the photographers in the catalogue.

Where all the work is so good it would be invidious to make distinctions, but if it were possible to pick out the work of one man as affording us particular pleasure it would be that of Mr. F. R. Yerbury. Mr. Yerbury uses his camera as another would use his brush or etching tools, and his photographs are more than photographs: they are works of art. The models of modern buildings are also of a very high standard. Sir John Burnet and Partners (No. 553) exhibit a fine model of the new front to the British Museum, and Messrs. Harvey & Wicks are to be congratulated on their model of Bournville Church (No. 541), which, besides being a good model, is an extremely interesting piece of design.

We are also very much indebted to Lady Constance Hatch and Lady Murray for the wonderful collection of models of old buildings that they have brought together; all are interesting, but probably one of the most interesting is the model of Whitehall Palace (No. 572) lent by the Royal United Services Museum.

The exhibition may be taken as representative of British architecture for the first quarter of the twentieth century. There are still two more years to run before the full quarter is rounded off, but these two years can make relatively little difference—the gist of the matter is here. Mr. Squire, in the charmingly written introduction to the catalogue, explains that it was impossible to make the exhibition entirely representative. In his own words:—"Some eminent names are missing from this catalogue, some important recent buildings are not shown, and we were not able in all instances to obtain good photographs of buildings falling within our period by illustrious architects now dead."

What the twentieth century in its completeness will record of our architectural history we of this generation will never know; but if the promise of its earlier years is fulfilled it will be a period worthy to rank with the great ages of architectural accomplishment.

It is almost inevitable that at a time like this our minds should turn to the beginnings of that earlier nineteenth century which, opening with so magni-

ficent a certitude, ended in such a welter of confusion. The years from 1800 to 1825 witnessed what was in effect the culminating period of our Classic Renaissance. These years were not so much the beginning of a new century as the ending of an old. The Classic tradition in this country had worn itself a little threadbare. Sir John Soane and John Nash, to take two outstanding names, were the last of the traditionalists, and their work, in spite of its interest and beauty, shows obvious signs of fatigue.

The work of these two men is not without a certain amount of piquant and contrasting interest for the architects of this generation. Soane prided himself on his originality and sought to express—or perhaps it would be better to say over-express—himself in his work; whilst Nash was content with the well-tried and accepted motifs, albeit a little thin in their application and a little theatrical in their totality. Distorting influences were at work—the murmurs of the romantic revival were in the air. They were the last of the old school, but they were also the first of the new. The early nineteenth century was not so much a period of struggle and effort as of easy accomplishment—a time of fulfilment rather than of promise. But in spite of their many limitations these men were great artists: the one gave us the Bank of England and the other the finest street in London.

It is a melancholy thought that probably the centenary of Nash's death will witness the destruction of the last of his buildings in Regent Street—if, indeed, one of them endures so long!

Contrasting their age with ours, we realise that ours is a time of great effort and of difficulty in performance. We have none of the old certitude; we press eagerly on towards an invisible and unrealisable end; but if we lack the old sureness we have a great hope and a great sincerity. As exemplified in the works of this exhibition, our modern architecture represents a web of conflicting tendencies, the warp and woof of which it is not altogether easy to disentangle and unravel, and the problem of paramount interest is what the future will resolve them into. If there is no one man of outstanding and commanding genius the level of attainment throughout is extraordinarily high.

It is extremely difficult for one architect, I will not say to criticise, but adequately to appreciate the work of his brother architects; and it was only the kindly insistence of the Editor of this Journal that led me to try. In my own mind, and in order to clarify my thoughts, I have attempted to divide the exhibits into different classes owing their origin to different tendencies, but the result is purely arbitrary and one that would break down under sustained and searching criticism. I therefore put my conclusions forward very tentatively, happy if I occasionally hit the mark or find an echo of my own thoughts in the thoughts of others. If I were to mention by name all those who have contributed good work, I could but recite the list of those exhibitors to be found at the end of the catalogue. So that I must perforce accept some and reject others, not on any infallible system of selection but merely for the purposes of my argument.

THE ARCHITECTURE CLUB

The exhibition is very strong in examples of domestic architecture. At the beginning of the century the great influences that determined the trend of this branch of our building art were diffused through the very different personalities of the late Mr. Norman Shaw, the late Sir Ernest George and Mr. C. F. A. Voysey, who is still happily with us. The first two stood definitely for the classic or Georgian tradition, whilst Mr. Voysey followed on the lines of our old English cottages and manor houses. Judging from this exhibition it would appear that the "Georgians" had won, though Mr. Voysey's influence is still plainly to be discerned.

Sir Edwin Lutyens may be taken as the head of a group of distinguished architects who have worked in this manner. He may perhaps be taken as more representative than most of the spirit of the age. Starting with the cottage and farm house model, he passed through an experimental stage represented by his house at Ilkley (No. 206) and thence to the triumphant simplicity and quiet serenity of High Walls (No. 208) and the house at Tavistock (No. 196). Amongst others who have built houses in the classic manner with distinction may be mentioned the late Mr. Ernest Newton, Mr. Horace Field, Mr. Guy Dawber, Mr. Oswald Milne, Mr. H. M. Fletcher, Mr. Clough Williams-Ellis, Mr. Basil Oliver, and Mr. Alan Brace.

The shadow of the great war is felt in that corner of Room No. 2, around which are grouped the buildings of the late Mr. Alwyn Ball, Mr. Frank Chesterton, and Captain A. Winter Rose, M.C., all of whom fell in that great tragedy. They, too, worked in the Georgian vernacular, and we and English architecture are the poorer for their passing. One extremely interesting exhibit is the model of a Georgian house at Windsor by Messrs. Baillie Scott and Beresford (No. 544). Mr. Baillie Scott was for so long so determined an exponent of the half-timbered cottage that his essay in the "Georgian" comes as a delightful and refreshing surprise.

As a piquant contrast to the work of the foregoing are the buildings by Messrs. Detmar Blow and Billerey (Nos. 276-278) and those of Mr. J. D. Clarke (Nos. 136-141), which are for the most part designs in pre-Georgian styles. Mr. Clarke's beautiful Court Lodge, Groombridge, stands in a class by itself.

To pass to another group, we have next to consider the work of a number of men which, for want of a better word—and I use it in no derogatory sense—I will call the "Experimentalists." Working on traditional lines, they yet strive to infuse their work with a note of distinctive modernity, something which shall make it peculiarly the product of the twentieth century as distinct from all other centuries. Chief amongst these may be reckoned Sir John Burnet, who represents the meeting of such divergent streams as those of the modern Glasgow School and that of the French Beaux-Arts. His British Museum extension is so well known that I will not dwell on it here; his Institute of Chemistry in Russell Square is perhaps not quite so well known as its famous neighbour, but is none the less interesting. It seems so happily related to the Square and yet is unmistakably separated from it by

the full breadth of an hundred years. In the group may also be reckoned such men as Mr. Robert Atkinson (whose fine theatre at Brighton is a most interesting example of modern design), Mr. Goodhart-Rendel, who is represented by a fine building at Calcutta, very impressive in its restrained modernity; Mr. F. W. Troup, Messrs. Percy Adams and Charles Holden, Mr. Dunbar Smith and the late Mr. Cecil Brewer, and possibly Mr. Philip Tilden, though it is a little more difficult to place this brilliant young architect, who might claim to belong equally to the classic and the "new" school.

Our public and more important buildings are not so easy to classify as our domestic. Some I have already touched upon and others I must treat as the work of individual architects rather than of schools. It is the fashion to decry our public architecture as altogether inferior to our domestic, the truth being that all great works of art—that is, great in compass as well as in conception—demand corresponding efforts of comprehension. It is always so much easier to decry than to understand. But when we contemplate that magnificent series of great buildings evolved by Messrs. Lanchester and Rickards, Messrs. Mewes and Davis, and Messrs. Richardson and Gill—to take the names of three firms which immediately occur to me—we need not be so despondent about the future of architecture with a large A. Whilst the two latter firms of architects owe more or less to French influences, the first occupy a unique position in the history of our art. We are a little too near the picture to judge quite impartially, but possibly the future generations will place that amazing series of buildings which comprise the Cardiff Town Hall, the Wesleyan Hall and the Christian Science Church, Mayfair, in a higher class than we do to-day.

Other architects who have designed buildings of first-class importance, and who are worthily represented in this exhibition are Mr. Frank Atkinson, Mr. Austin Hall, Mr. Curtis Green (whose charming little building in Duke Street, W.—No. 262—is one of the successes of the year), Mr. J. J. Joass and Mr. Ralph Knott, Mr. Vincent Harris, Messrs. Marshall MacKenzie and Son, Professor C. H. Reilly, and Messrs. Niven and Wigglesworth. Post-war housing schemes are represented in the work of Messrs. Hennell and James, Messrs. Culpin and Bowers, Mr. Lawrence Dale and Mr. Alwyn Lloyd, as well as by the more public work of the housing section of the London County Council, under Mr. Topham Forrest, and that of the architects of the Ministry of Agriculture and Fisheries under the direction of Mr. H. P. Maule. These post-war housing schemes are probably more original, in the true meaning of that much misused word, than anything in the present exhibition—owing little to style or tradition—they are so expressive of their purpose, so true to programme, so direct in intention, that they contain hidden within them the possibility of a great democratic architecture yet to be developed.

One very interesting section of the exhibition is that devoted to the work of our colonies. South Africa is well represented by Mr. Herbert Baker, whose series of Colonial houses are well worthy to rank with the best

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

domestic work of the mother country. His Villa Arcadia (222-230) strikes a very new and refreshing note. Canada has only two buildings to her credit, Mr. Frank Simon's magnificent new Parliament House at Winnipeg and a charming little Colonial house by Mr. Septimus Warwick; whilst Australia and New Zealand, as far as I have been able to discover, are entirely unrepresented!—an omission for which it is to be hoped future exhibitions will compensate.

One word on our ecclesiastical architecture, and I have finished. The three names that stand forth pre-eminently in this class of work as represented at Grosvenor House are those of the late Mr. G. F. Bentley, Mr. Walter Tapper and Mr. G. Gilbert Scott, R.A. At the present time it does not look as if the twentieth century was to be a period of great church building activity, but if we do not build so many churches as did our forefathers of the nineteenth century we certainly build infinitely better ones. The two cathedrals of two sister churches at Westminster and Liverpool stand forth in mute protestation against the shoddy and the makeshift—citadels of strength and beauty to guide and inspire us throughout the remaining years of the century.

SIR ERNEST GEORGE'S WATER-COLOURS.

Sir Ernest George's water-colours are well known to architects. He was a fairly regular exhibitor at the Royal Academy, and we believe that in recent years he provided a "one man show" at one of the London galleries for charitable purposes. If Sir Ernest ever sold a water-colour it must have been on some rare occasion. He preferred to keep them for his own pleasure, for the pleasure of his friends, and for gifts. It is not too much to say that no architect, with or without a large practice, and Sir Ernest George had a large practice, has ever accomplished so much in water-colour painting and etching, as he has. He, in a manner, practised the three arts concurrently, although his paintings and etchings were the vocation of his holidays and leisure hours.

The Memorial Exhibition of his water-colours now on exhibition at the galleries of the Fine Art Society in Bond Street more than stand the test of being grouped together: they also illustrate the development or change in his method of painting from 1869 until within a few years of his death. From the careful elaboration of the interior of cathedrals and more monumental subjects, he in latter years developed an increasingly lighter touch and more pronounced feeling for the picturesque in architecture and the grouping of buildings: for vistas seen through arches, for bridges, for narrow, overhanging streets, all depicted with a certainty of drawing and delightful facility in light and charming washes. If his drawings suggest anything, it is a lyrical joy which the artist has felt in his work; a holiday mood, in charming weather, in beautiful surroundings, is expressed with unfailing technical accomplishment. His choice of subject follows the path of his holiday haunts in Switzerland, Italy, France, Germany, India and North Africa. Apart from the pictures hung independently there is a considerable number of bound volumes of his smaller sketches, which are not less interesting than those to be seen on the walls.

Reviews

EVERYDAY LIFE IN THE NEW STONE, BRONZE, AND EARLY IRON AGES. By Mr. and Mrs. C. A. B. Quennell. [Batsford : 94, High Holborn. 5s. net.]

Mr. and Mrs. Quennell are to be congratulated on achieving a further success with their latest book dealing with Everyday Life, the last issued being on the New Stone and Early Metal Ages. They have proved themselves possessed of that rare gift the power to entertain and at the same time to instruct, and their books, although written nominally for boys and girls, will at the same time be found of intense interest and entertainment to children of a larger growth.

The hill-top view taken by Mr. Quennell and his gifted wife is a useful tonic in these days, and through the whole series runs an uplifting note that all human effort is working slowly but steadily through the centuries towards the improving and still further perfecting of everything touched by human hands. The scope of this volume runs from the kitchen middens and roughly worked flints of the Older Stone Age to the finely finished tools of the Bronze and Early Iron Ages.

Everything that man used in those remote days is brought into review, hut circles and houses, flint implements, cooking vessels and pottery, neolithic earthworks and dewponds, boats and boat-sailing, trapping and hunting, long barrows and round tombs, the dolmen and menhir, finishing with a most interesting and suggestive reconstruction of Stonehenge.

In the Bronze Age, we see the gradual development of the Bronze Celt and the bronze weapon under the skilled hand of the smith, the gradual growth of spinning and weaving of fabrics and the steady development of comfort and personal adornment. The introduction of wheeled vehicles must have made an almost greater revolution in its day than anything that has happened since, and following on this came the building of the first bridges of stone or wood, the introduction of the plough and the general improvement of agriculture and peaceful pursuits. Pottery, whether of earthenware or bronze, was a very early necessity, and with the ornamentation of their drinking vessels and personal belongings, the men of those days must have made a commencement, at any rate, with the ornament and rational design of their houses.

From the early cavern to the thatched roof, covering first a hollow in the ground, and not the earthen walls—later to stone walls and wooden superstructures—the progress of the house-builder has been steady and continuous. The use of fire and cooking apparatus of various kinds led by gradual steps to the internal hearth and rudimentary chimney opening in the roof. Later, when iron smelting became general, a new era

REVIEWS

of possibility opened for the human race, and each great section of the race has added its contribution to the general stock of knowledge. The very advanced stage of development reached in Ancient Egypt has just been accidentally revealed to us, and in this little book Mr. and Mrs. Quennell have shown how highly developed was the stage of civilisation reached about the same time even in Ancient Britain, when bronze mirrors and ornaments were often of the choicest possible workmanship, showing that even in those early days the craftsman had begun to take a justifiable pride in his work.

It is good to be thus reminded of the age-long effort which has gone before us to make possible the civilisation of the present and to prepare the way for the still greater advances which have yet to be made.

The interest of the descriptive letterpress is greatly enhanced by a number of charming and suggestive sketches which Mr. and Mrs. Quennell have prepared to illustrate and illuminate the everyday life of our remotest ancestors.

A book which will be enjoyed by all and will be of particular interest to children of all ages.

W. R. DAVIDGE [F.]

ENGLISH DECORATION AND FURNITURE OF THE LATER EIGHTEENTH CENTURY—
1760 to 1820. By M. Jourdain. [B. T. Batsford, Ltd.]
£3 3s. net.

The period covered by this book was in all things one of transition, and not least in architecture and decoration.

The Palladian tradition in English architecture started by Inigo Jones, after modification by Wren in a French sense, was restored by his successors and remained intact up to 1760.

The almost unbroken intercourse between the English and French aristocracies up till the Revolution, of which so much is made by Mr. Jourdain, had little direct influence on decoration here, and even on furniture not much.

A certain infusion of "rocaille" ornament is to be found in interiors in the middle of the century, but this was kept subordinate to the strictly Palladian setting out of the rooms. In 1760 the walls were still proportioned according to the Temple orders—the cornice one-twelfth to one-sixteenth of the height, the fireplace of equal height and width, the architraves one-sixth of the openings, etc. A good example of the mixture may be seen at No. 1, Greek Street, Soho, built about 1760.

Then came the Adamite revolution, and all was changed, at least as far as the interiors were concerned, and finally Sir John Soane insisted that all external constructional forms should be excluded from interior decoration.

Mr. Jourdain's book may be regarded as in some sort complementary to the numerous purely architectural works dealing with the period, since he treats not only of decoration but also of furniture, fittings,

door knobs, grates, fenders, and all that went to make up the complete interior.

The plates are fine, but the text is the most valuable part of the work; it is fully documented, gives an account of many almost unknown artists, and must have involved most laborious research.

It is probably documentary evidence that has misled Mr. Jourdain into attributing to Robert Adam the design of the Kedleston chimneypiece (Fig. 57), which is obviously of early eighteenth century date, though the grate and fender are clearly his. The chimneypiece (Fig. 108) has "fake" written all over it.

Professor Atkinson, in his able foreword, expresses the surprising opinion that "the outstanding artist of this period is beyond question Henry Holland."

Are we, then, to dethrone Robert Adam?

CHARLES E. SAYER [A.]

THE CONSTRUCTION OF A HOUSE. By Charles Gourlay, B.Sc. (Glasgow University), F.R.I.B.A., Professor of Architecture and Building in the Royal Technical College, Glasgow. [London: B. T. Batsford, Ltd.]

The book was first issued in 1910 and this is a revised second edition and consists of about 40 plates with descriptive paragraphs of same. The plates illustrate and detail all the working drawings necessary for the carrying out of a good-sized country residence and are clear and legible, being to quarto size, and yet it is not a heavy and cumbersome book to carry about. The author has aimed at giving advanced architectural and building work students a reliable textbook on building construction, shown in all its connection with one building of a high-class type.

Undoubtedly Mr. Gourlay has succeeded in this difficult aim, and the book, used in connection with other well-known textbooks and lectures, and analysed—not copied—would help any student considerably. Of course, the student would have to use it with judgment, and remember that it is Mr. Gourlay's design, and that, to be of use in everyday work, he must think of some site known to himself and adapt the whole design to that site. For instance, let him recast the drainage scheme to suit a growing suburb with sewers, and hollow brick walls with two storeys only, and so on to any extent, remembering that merely to copy the plates will be nearly useless.

The trouble to the author of a work like this must be to decide what examples to cut out of other arrangements and details, and stick to the one design, and therein lies the weakness of all such works to the general student, but used as a monograph on one building it should give students much useful experience in the same way that measuring up any good architectural subject and recasting it would benefit the student.

C. O. NELSON [A.]

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

BUILDING SUPERVISION. *By George W. Grey,
Licentiate R.I.B.A., F.S.I., Member of the Institute
of Structural Engineers.*

This little volume, now appearing in its second edition, will prove of the utmost value to young architects, clerks of works and foremen of works.

The author draws attention to many of the faulty methods of construction which are in common use, some of which, by their frequent repetition, have come to be accepted as a matter of course. He also refers to certain practices indulged in by unscrupulous contractors, with the object of guarding the architect or clerk of works against such practices and evidently hoping that, by pointing out particular examples, others may be forestalled by the stimulated imagination of the supervisor.

Sections 1 to 3 give useful information and advice regarding : preliminaries ; duties of the clerk of works, together with a word of warning concerning the limitation of such duties ; use of the diary ; day work and variations. Sections 4 to 32 deal with each trade separately, and in some instances the trades themselves are subdivided, thus facilitating reference. Under each trade the items usually requiring the most supervision or comprising the most frequent sources of error or omission are described.

There is no experience of more value to a young architect than to be entrusted with the supervision of actual building operations. **J. R. HOBSON [A.]**

MANUAL OF REINFORCED CONCRETE. *By C. F. Marsh and W. Dunn. 4th Edition. 1922. [London : Constable and Co., Ltd.]*

This compact and comprehensive little handbook has now reached a fourth edition, having grown considerably in size since its first appearance. Besides improvements in detail, the fourth edition embodies two additions to the subject-matter of the third—namely, a résumé of Professor Cain's theory and equations applying to retaining walls, and an article by Mr. Dunn on the stresses in columns eccentrically loaded by means of a bracket. As a practical handbook for users of reinforced concrete, it is difficult to imagine how, in the present state of knowledge, this little book could be made more complete.

JOHN H. MARKHAM [A.]

In *Punch*, in the number of 21 February, Mr. Raven Hill, in a cartoon, depicts the Bishop of London, with a pickaxe on his shoulder, contemplating a statue of Wren bearing the inscription, "To the Immortal Memory of Sir Christopher Wren, died 26 February 1723." The Bishop is saying, "Ah, Wren ! Great man ! What can we do to honour his bicentenary ? I know. Knock some of his churches down !" *Punch* has rarely been more apposite in its cartoons.

Correspondence

MEMBERSHIP OF ALLIED SOCIETIES.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—With reference to Mr. Stenner's letter, the proportion of R.I.B.A. members in the Bristol Society is much larger than in many others. According to the official figures supplied from Conduit Street, the membership of that Society is 60, and 38 of that number are members of the Institute. One Allied Society has 75 members, and 16 are members of the Institute ; another has 144 members, and 16 are members of the Institute ; another has 174 members, and 38 are members of the Institute ; another has 203 members, and 51 are members of the Institute, etc., etc.

I am also informed the average membership of the Allied Societies in the United Kingdom is 110, and the average number of members of the Institute in those Societies is 39. I am also informed the average membership of Overseas Societies is 150, and the average number of members of the Institute in those Societies is 14.

If it were put to the vote in the Allied Societies, and the members were asked if they would like to become members of the Institute under a Unification Scheme and without passing any examination, who can doubt what the result of the voting would be ?—Yours faithfully,

SYDNEY PERKS [F.]

LONDON BUILDING ACT 1894 : PARTY STRUCTURES.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—A question of some interest to London members relating to the payment for the use by an adjoining owner of a party wall built seven years ago in London was decided at the last meeting of the Practice Standing Committee, and might possibly be published in the JOURNAL.

The Committee was of opinion that under the London Building Act, 1894, Part VIII, Sec. 95, the expenses referred to were the due proportion of the cost at the time of building, and not a valuation at the current rates at the time of user.

Yours truly,

J. DOUGLAS SCOTT [A.],
Hon. Secretary, Practice Standing Committee.

THEORY OF ARCHITECTURE.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—In Mr. Budden's thoughtful essay published in your issue of the 24th ult. there are a few points that in my opinion call for adverse notice.

CORRESPONDENCE

Having premised (IV) that all art consists of intuitions which have to be externalised in order that they may be appreciated by persons other than the artist, Mr. Budden proceeds to state (VII) that the sole function of art is to give pleasure. Here, it seems to me, he ignores the educative purpose of art, its highest function being to elevate the souls of those who are brought under its influence.

Coming to the question how beauty can result from a work of art, our author lays it down (VIII) that this effect is achieved "by establishing a complete harmony between the unity of the mental image and the unity of the externalised symbol." The artist has an intuition, and by the exercise of his art he externalises it, thus making it accessible to other people; and when the externalisation or outward manifestation corresponds accurately to the idea in the artist's mind beauty is the result. "Upon no other terms is beauty in art to be revealed," writes Mr. Budden.

The presupposition underlying this assumption is that all intuitions are beautiful. But is this invariably the case? I fancy there are many persons who would not concede beauty, e.g., to all the music of Wagner or all the poetry of Browning.

In discussing the transmission of architectonic ideas (XI) Mr. Budden touches upon the use of style. He writes: "A more or less general agreement seems to have been reached that in the case of secular programmes a development of the Renaissance or neo-Classical manners is most fitting; whilst for ecclesiastical subjects the Mediæval or Byzantine conventions are appropriate."

I suggest that whatever kind of eclecticism we may succeed in evolving, it must possess the element of unity—in short, we must have one style for all purposes; and I regret that this point was not emphasised in the admirable essay under notice.—Yours faithfully,

GEORGE H. BLAGROVE [*Licentiate*].

EXHIBITION OF MR. RAFFLES DAVISON'S DRAWINGS IN NEW YORK.

The largest one-man show of its kind is now being held in New York. It consists of over a thousand drawings and sketches by T. Raffles Davison, Hon. A.R.I.B.A., which have been created during the last forty years of his professional experience. Articled to an architect over fifty years ago, this artist had so marked a calling for pictorial architectural expression that he devoted himself to it, and has probably made over fifteen thousand drawings and sketches, some thousands having been commissions for architects to give pictorial expression to their designs. About ten thousand sketches have been published in his series of rambling sketches, the bulk of which have been given to the public and not paid for in any way.

Architects' Benevolent Society

The Architects' Benevolent Society have for some time had under consideration a scheme for acting as agents for life assurance with a view to augmenting the income of the Society in order to distribute larger grants to deserving applicants than is at present possible with the means at their disposal. The scheme has now materialised, and in response to a letter (see below) addressed to all the architects in the United Kingdom, over a hundred inquiries have been received, many of which have now matured.

9 Conduit Street,
Regent Street, London, W.1.
21 February 1923.

"In view of the many demands made on the Architects' Benevolent Society as the only philanthropic organisation in the United Kingdom solely devoted to the assistance of architects, or their widows and orphans, who have fallen on evil days, and in view also of the difficulty the Society often experiences in affording adequate and effective help, the Council have now developed a scheme whereby they hope, with the co-operation of the profession, materially to increase the Society's funds and enable it to grant a fuller measure of relief to applicants than it finds possible at present.

"In brief, this scheme is that the Architects' Benevolent Society should act as an agent for life assurance, the commission thus obtained to be shared by the Benevolent Society and the architect who insures. Thus, if you insure your life for, say, £1,000, half of the sum of about £10 received as commission will be credited to the Society as a subscription to its funds in your name, and the other half will be returned to you in the form of rebate. If, however, you prefer it, the second half may also be regarded as a contribution to the Society's funds. All subsequent commissions received in respect of renewals will be treated as a subscription to the Society in your name.

"Insurances can be effected with or without medical examination, and full particulars will be supplied on application to the Secretary. If desired, insurances other than life will also be arranged for.

"In this way a regular income will be assured the Society; but the amount received for each insurance will naturally be small, and it is only by engaging the sympathy and help of the profession as a whole that we can hope to augment our funds to any appreciable extent. If every architect would realise that by effecting his insurances through the Benevolent Society he is not only acting in his own best interests, but is helping to insure for the less fortunate members of the architectural community a provision against want and poverty-stricken old age, he would, we feel sure, give us loyal and enthusiastic support.—We are, yours very truly,

PAUL WATERHOUSE, Chairman.
W. HILTON NASH, Hon. Treasurer.
CHARLES A. NICHOLSON, Hon. Secretary."

The letter was accompanied by an appeal for donations and subscriptions, to which there has been a good response.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

MR. WATERHOUSE AND THE ARCHITECTURAL LEAGUE OF NEW YORK.

On the occasion of the opening of its Thirty-Eighth Annual Exhibition, the Architectural League of New York elected Mr. Paul Waterhouse, President of the Royal Institute of British Architects, as an Honorary Member of the League, in recognition of his distinguished services to the art and profession of architecture.

MASONIC MEMORIAL BUILDING.

A communication has been sent to Grand Lodge by the Council urging that there should be an open architectural competition for the new memorial building, and that a deputation should be received.

Obituary

ARTHUR THOMAS WALMISLEY [Hon. Associate].

It is with great regret that members of the Institute to whom he was well known heard of the death, on 18 January, of Mr. A. T. Walmisley, M.Inst.C.E., who was elected an Honorary Associate in 1896.

Mr. Walmisley was born in Westminster on 27 April 1848, and was the son of the late Mr. Arthur Walmisley, of H.M. Foreign Office, Whitehall. Educated at King's College School, and subsequently at King's College, London, of which foundation he was afterwards elected a Fellow, Mr. Walmisley commenced an engineering career as articled pupil to the late Mr. R. M. Ordish, Civil Engineer, of Great George Street, Westminster.

While with Mr. Ordish, Mr. Walmisley was engaged in carrying out the task of erecting the great span roof of St. Pancras Railway Station. Subsequently he became Resident Engineer upon the Albert Bridge, Chelsea, and was later engaged upon the drawings for the reconstruction of the Alexandra Palace, Muswell Hill. In 1876, under Mr. (now Sir) A. R. Binnie, he was engaged upon the Bradford Reservoirs and High Level Water Supply.

In 1877 Mr. Walmisley returned to London and started practice as a civil engineer in Victoria Street, S.W. Amongst the notable works on which he was engaged were the main roof of Olympia, Kensington, the roof of the Carlisle Corporation Market, and the reconstruction of the Borough Market, London Bridge. He was consulting engineer to the Central Markets Committee of the Corporation of the City of London, and executed the Railway Street Bridge for the Corporation of Chatham and Blake's Bridge over the River Kennet for the Corporation of Reading. He rebuilt a lock for the Shoreham (Sussex) Harbour Trust, and was engaged upon many other important works. He became well known as an expert witness before Parliamentary Committees, and as an arbitrator in legal cases. In 1888 Mr. Walmisley was appointed Engineer to the Dover Harbour Board.

Mr. Walmisley was a past President of the Civil and Mechanical Engineers' Society, past President of the Society of Engineers, a member of the Institution of Civil Engineers, a Fellow of the Surveyors' Institution, and a well-known lecturer on engineering subjects. He was the author of *Iron Roofs, Field Works and Instruments, Land Surveying and Levelling*, and numerous articles and monographs on professional subjects in various publications.

The British School at Rome

ROME SCHOLARSHIPS, 1923.

Results of the Preliminary and Open Competitions.

The Faculties of Art of the British School at Rome have selected the following candidates to compete in the Final Competitions for the Rome Scholarships of 1923 :—

ARCHITECTURE.

Name.	School.
Isabel M. Chambers ..	Architectural Association.
E. A. Cordingley ..	University of Manchester.
E. Maxwell Fry ..	University of Liverpool.
P. J. B. Harland ..	Architectural Association.
E. H. H. Higham ..	University of Liverpool.
C. G. C. Hyslop ..	Architectural Association.
G. A. Jellicoe ..	Architectural Association.
Cyril R. Knight ..	University of Liverpool.
Geoffrey L. Owen ..	University of Liverpool.
Edwin Williams ..	University of Liverpool.

DECORATIVE PAINTING.

Constance E. E. Grant ..	Royal Academy Schools.
Alfred K. Lawrence ..	Royal College of Art.
Doris M. Stacey ..	Royal Academy Schools.
Hugh G. Stutfield ..	Slade School.

SCULPTURE.

Frank P. Chambers ..	School of Architecture, University of Cambridge.
Ernest Webb ..	Nottingham School of Art.
David Evans ..	Royal Academy Schools.
A. Seaton White ..	Slade School.

ENGRAVING.

Frank C. Medworth ..	Westminster School of Art and Royal College of Art.
E. Heber Thompson ..	Slade School and Royal College of Art.
Elizabeth Fyfe ..	Slade School and Central School of Arts and Crafts.
Charles Murray ..	Glasgow School of Art.

The Sixth Annual Exhibition of works submitted in open competition for the Rome Scholarships, 1923, in architecture, painting, sculpture and engraving, together with works executed in the final competitions for the scholarships of 1922, and some examples of the work of Rome Scholars, will be held at the Royal Academy from the 9 March to 15 March 1923. The Exhibition will be open from 10-5 daily.

PARIS SALON EXHIBITION, 1923.

Members desirous of sending exhibits may obtain official forms and full particulars of arrangements for sending works collectively from Messrs. Bourlet and Sons, Ltd., 17 and 18, Nassau Street, Mortimer Street, W.1, who are acting as London agents.

NOTICES

ROYAL GOLD MEDAL FOR ARCHITECTURE.

At a General Meeting of the Royal Institute of British Architects, on 5 March, Sir John James Burnet, A.R.A., R.S.A., Hon.LL.D., F.R.I.B.A., was elected by the Members and his name will be submitted to His Majesty the King as a fit recipient of the Royal Gold Medal for Architecture for the year 1923.

In the event of His Majesty graciously signifying his approval of the award the Medal will be presented to Sir John Burnet at a meeting on 25 June.

CEMENT.

The Council of the Royal Institute have ordered the following notice to be printed in the R.I.B.A. JOURNAL :

"As a result of a conference between the Royal Institute and the National Federation of Building Trades Employers, the Council recommend that Members and Licentiates of the R.I.B.A. should take steps to obtain cement only from manufacturers of good repute. It should conform in every respect to the British Engineering Standards Association's Specification for Portland Cement (hereinafter termed the 'British Standard Specification')."

"The cement should be of slow setting quality as defined by the British Standard Specification except where specified to be otherwise."

"The cement to be delivered on the works in bags or barrels bearing the maker's name and the weight of the cement contained, together with the manufacturer's certificate."

Competitions

COMPETITION FOR A BLOCK OF FIVE SHOPS FOR THE PRESTWICH CO-OPERATIVE AND INDUSTRIAL SOCIETY, LTD.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

IAN MACALISTER, Secretary.

CAIRO HOSPITAL COMPETITION.

The Secretary of the Royal Institute of British Architects has received a cablegram from Mr. John W. Simpson, Past-President R.I.B.A., the assessor in the Cairo Hospital Competition, to the effect that he has made his award, and that the successful competitors are Messrs. Charles Nicholas, F.R.I.B.A., and J. E. Dixon-Spain, O.B.E., F.R.I.B.A., of 19, Hanover Square, W. The second place in the competition has been awarded to Messrs. Lanchester, Rickards, Lucas & Lodge, FF.R.I.B.A., of 19, Bedford Square, W.C.

PROPOSED PUBLIC BATHS AND WASH-HOUSES COMPETITION, GREENWICH.

The President of the Royal Institute of British Architects has nominated Mr. Henry V. Ashley, F.R.I.B.A., as Assessor in this competition.

OPEN COMPETITION AT MONTEVIDEO.

Extract from a letter received from the British Vice-Consul at Montevideo :—

"I have to transmit herewith a booklet in Spanish, issued by the Municipality of Montevideo containing the conditions under which an international call for tenders is being made for projects and plans for the construction of a building which is to be dedicated to the Government for the use of the Local Departmental Council of Montevideo.

"Prizes will be awarded to the successful architects. The first prize will be \$10,000 Uruguayan, the second \$5,000, the third \$3,000, and other prizes of less than \$3,000 will be distributed according to their merits.

"All plans and specifications and other literature must be forwarded to the Secretariat of the Consejo Nacional de Administracion, Palacio Municipal de Montevideo, before 5 p.m. on 8 August 1923. It is not stated in the conditions whether local representation is necessary or not, and have no information on this point.

"A copy of the booklet has been forwarded by the Government to Uruguayan Legations all over the world. United Kingdom architects interested in this matter could presumably obtain further information from the Uruguayan Legation in London."

The conditions in Spanish can be seen in the Institute Library.

Notices

THE TENTH GENERAL MEETING.

The Tenth General Meeting (Ordinary) of the Session 1922-23 will be held on Monday, 19 March 1923, at 8 p.m., for the following purposes :—

To read the minutes of the General Meeting (Business) held on 5 March 1923 ; formally to admit members attending for the first time since their election.

Mr. G. E. S. Streatfeild, O.B.E., D.S.O. [F.], to read a Paper on "The Hammersmith Housing Scheme."

PUBLIC LECTURES ON ARCHITECTURE.

Thursday, 15 March 1923, at 5 p.m. : "Architecture—a Necessity or a Luxury?" Lecture by Mr. H. S. Goodhart-Rendel.

Wednesday, 21 March 1923, at 5 p.m. : "The Public and the Architect." Lecture by the Right Hon. Lord Sumner of Ibstock, G.C.B., P.C.

VISIT TO MESSRS. SELFRIDGE AND CO.'S BUILDING.

At the request of Messrs. Selfridge and Co. the visit arranged for 24 March is postponed until 7 April, owing to the former date being Boat-Race day.

ANNUAL CONFERENCE 1923.

The Annual Conference of the R.I.B.A. and Allied Societies will be held in Edinburgh from 13 to 16 June.

THE R.I.B.A. AND THE INSTITUTION OF ELECTRICAL ENGINEERS.

A joint meeting between the R.I.B.A. and the Institution of Electrical Engineers will be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, on Thursday, 15 March 1923, at 6 p.m., when Papers on "The Co-operation of the Architect and the Electrical Engineer" will be read by Mr. Francis Hooper, F.R.I.B.A., and Mr. J. W. Beauchamp, M.I.E.E.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE ILLUMINATING ENGINEERING SOCIETY.

On Tuesday, 27 March, Mr. P. J. Waldram will open a discussion before the Illuminating Engineering Society on "Window Design and the Measurement and Pre-determination of Daylight Illumination." The meeting will be held at the Royal Society of Arts (18 John Street, Adelphi), at 8 p.m. Members of the Institute are cordially invited to be present. Advance copies of the paper can be obtained by applying to the Hon. Secretary of the Society, at 32 Victoria Street, S.W.1.

Members' Column

Members, Licentiates, and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

LONDON OFFICE ACCOMMODATION.

CONSULTING ENGINEER, M.Inst.C.E., can offer good private office, with part use of drawing office and clerical assistance. Quiet situation near Temple Station.—Apply Box 2323, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

OFFICE WANTED.

ASSOCIATE is desirous of meeting another with a view to sharing an office.—Apply Box 555, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENTS WANTED.

LICENTIATE R.I.B.A. desires re-engagement as Quantity Surveyor in architect's or public office; 30 years' thorough, sound and practical experience in London and provincial methods; supervising works in progress and settling up at completion; first-class references.—Apply Box 928, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A., 10 years' varied experience, seeks position as Assistant in London office; good draughtsman; working drawings, details, perspectives; excellent testimonials; moderate salary to commence.—Apply Box 431, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE, old Public School boy, ex-service man, 30 years old, with sound experience in private and public offices, requires position as Assistant in the provinces.—Box No. 8323, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

A LICENTIATE requires a seat in an architect's office with part or whole time assistance, as required. Prospects of introducing work Terms on application.—Apply Box 478, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE R.I.B.A., with 12 years' experience in good New York City offices, including Cass Gilbert, Trowbridge and Ackerman, J. Armstrong Stenhouse, Fredk. Sterner, finds it desirable, for family reasons, to return to England, and would be glad to hear of any suitable proposition. Previously in practice in London. Now and for past two years engaged as designer with one of the best known younger New York men. For further information apply Box 1517, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

Minutes X

SESSION 1922-1923.

At a Special General Meeting, held on Monday, 5 March 1923, at 8 p.m.—Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 10 Fellows (including 3 members of the Council), 11 Associates, 1 Hon. Fellow, 2 Hon. Associates, 2 Licentiates.

The Minutes of the Special General Meeting held on Monday, 29 January 1923, having been published in the JOURNAL, were taken as read and signed as correct.

The President announced the object of the meeting, viz., to elect the Royal Gold Medallist for the current year.

On the motion of the President it was RESOLVED by acclamation that, subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of Architecture be presented this year to Sir John James Burnet, A.R.A., R.S.A., Hon.LL.D., in recognition of the merit of his work as an architect.

The Special General Meeting then terminated.

At the Ninth General Meeting (Business) of the Session 1922-1923, held on Monday, 5 March 1923, immediately after the Special General Meeting above recorded, and similarly constituted, the Minutes of the Meeting held on 19 February 1923, having been published in the JOURNAL, were taken as read and signed as correct.

The Hon. Secretary announced the decease of the following member:

Lt.-Col. Arthur William Brewill, D.S.O. [F.], of Nottingham, who was elected a Fellow in 1892.

It was RESOLVED that the regrets of the Institute for the loss of this member be recorded on the Minutes of the Meeting and that a message of condolence and sympathy be conveyed to his relatives.

The following candidates were elected to membership by show of hands under Bye-Law 10:

AS FELLOWS (4).

KENYON : ARTHUR WILLIAM [A. 1907].

ROBERTSON : ANDREW [A. 1893]. Glasgow.

SOISSONS : LOUIS EMANUEL JEAN GUY DE SAVOIE CARIGNAN DE, O.B.E., S.A.D.G. [A. 1918].

WORNUM : GEORGE GREY [A. 1921].

AS ASSOCIATES (9).

DIXON : CHARLES GUY [Special War Examination], Vereeniging, Transvaal, S. Africa.

HASWELL : PERCY BENSON, B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Chester.

KNOTT : ALFRED STOCKEN [Special War Examination].

NEWHAM : WILLIAM BENJAMIN TURNER [Special Examination], Johannesburg, S. Africa.

OWEN : GEOFFREY LEYLAND [Special War Examination], Hull.

SILK : GUY WHITEHALL [Special War Examination].

STOCKS : CLIFFORD WILLIAM BURNETT [Special War Examination], East London, S. Africa.

TAIT : ALFRED ALEXANDER [Special War Examination], Grahamstown, S. Africa.

WILLIAMS : ALBERT ERNEST [Special Examination], Gisborne, New Zealand.

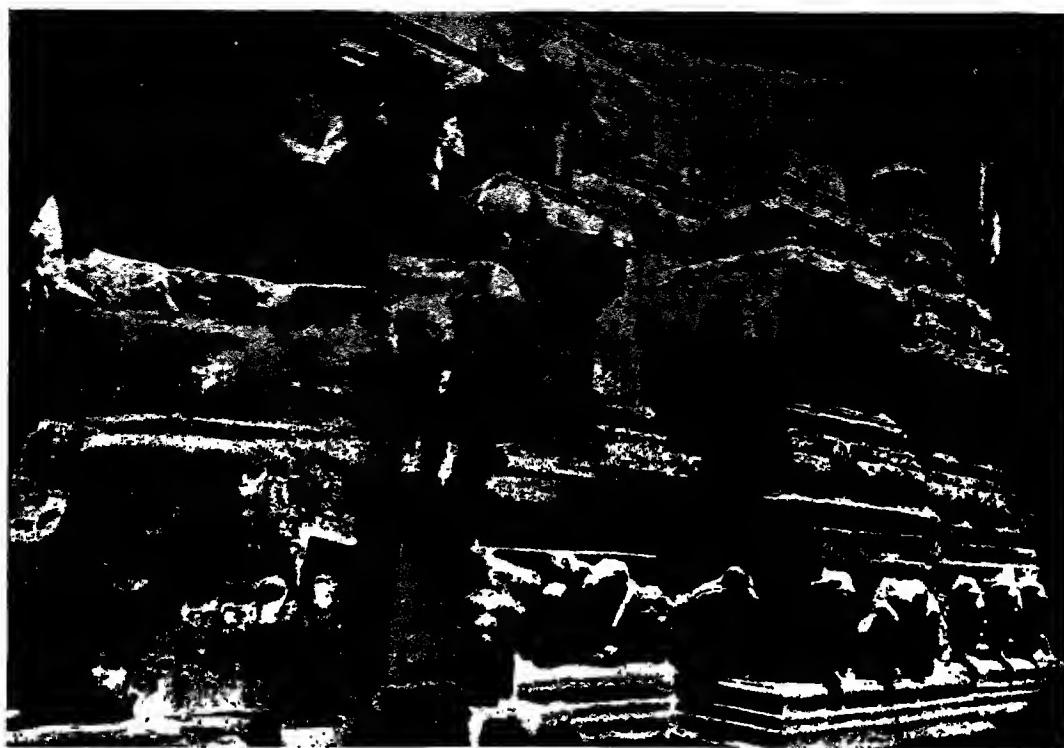
The President stated that the meeting was now open for discussion of Mr. S. Hurst Seager's Paper on "The Lighting of Picture Galleries and Museums," which appeared in the R.I.B.A. JOURNAL for 13 January. A large number of visitors having entered, Mr. Hurst Seager showed and explained a number of slides illustrating his paper. A vote of thanks to Mr. Seager was moved by Mr. Wm. Woodward [F.], seconded by Sir Charles Holmes, Director of the National Gallery, supported by the Earl of Crawford and Balcarres [Hon. Fellow], Sir Richard Paget [Hon. Associate], Mr. A. Dunbar Smith [F.], Mr. Arthur Bolton [F.], Mr. Arthur Keen [F.], Hon. Secretary, and carried by acclamation.

Mr. Seager briefly responded.

The Hon. Secretary having announced the dates of future meetings the proceedings closed, and the meeting terminated at 10.5 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

IAN MACALISTER,
Secretary R.I.B.A.



THE ROCK-CUT TEMPLES AT ELLORA (8TH TO 10TH CENTURY)

Architecture and Architects in India

BY H. V. LANCHESTER [F.]

[*Read before the Royal Institute of British Architects, Monday, 19 February 1923, The President (Mr. Paul Waterhouse, M.A.) in the Chair.*]

THE architect at home can put himself in possession of quite a comprehensive knowledge of the history of Indian architecture. The works of Fergusson, Vincent-Smith, E. Havell, and others, not to speak of the publications of the Indian Archaeological Department, would enable anyone interested to form a fair idea of the complex influences under which this art has expressed itself.

Fergusson deserves every credit for making a conscientious effort to classify Indian architecture, but he suffers from the inevitable limitations of the layman in dealing with an art such as ours, and, while his work has been improved upon by Vincent-Smith and others, there is still much to be done in tracing the developments of the art of building in India on a logical basis. Havell in his books has effected much to bring about a better appreciation of the Indian as architect, but unfortunately has

been too much obsessed by a desire to prove that the Indian was artistically dominant in all cases, and again, owing to the fact that he is not a practising architect, he is rather vague on the qualities that define the character of a building, often attaching an undue importance to minor expedients and missing the broader issues. We ought, however, to be grateful to him for pointing out how our methods are rapidly destroying every chance that remains of architecture continuing as a living art in India. Havell is undoubtedly correct in his contention that the traditional art of the country still exists, and that, though it has lost a little in vitality during the last two centuries, it still possesses enough to be worth cultivating by every means available. Unfortunately, our Government has been too out of touch with the arts to realise that architecture is the soul of building, and that it was worth while making

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

some sacrifices to save it. The main difficulty has been that the arts in India are indissolubly linked up with mediæval methods of production, the building being the result of the co-operation of the craftsmen concerned in it, while control must be of the loosest practicable kind and the character of the work subject to suggestion and revision from start to finish. With the right man in charge, fine buildings in the vernacular style could have been thus produced, and, though the cost would not have been capable of exact determination beforehand, experience has shown me that it would not necessarily have been greater than by the methods we employ, which have produced little that has other than a purely utilitarian value.

Our error has been that of imagining that the matter of paramount importance in building is that everything should be on paper beforehand in the form of drawings and estimates. Now this fallacy is quite excusable in Europe, where the last vestiges of mediæval practice disappeared over 100 years ago and where the best talent available is trained to work on these lines. Hitherto in India there has been practically no architectural ability capable of working on European methods, while there is a large body of artists who can work on mediæval lines. We have made the mistake of saying that we do not care what the results are, provided the methods have been businesslike, and what we picture as businesslike methods have, in the hands of the only men available, brought building down to the crudest level and have eliminated all those who possess the capacity for better things. As showing the poverty of brain capacity available, "type designs" for various classes of buildings are issued by Government which, whatever the original intention may have been, are slavishly copied regardless of site, local conditions and material available. By far the best craftsmanship and the only architecture showing real development in any of the vernacular styles I found in works away from official centres and the influence of Government control. I made inquiries as to the cost of such work and found it less than we should have paid for the same thing, not reckoning our overhead charges, which range from 22 to 28 per cent. to cover drawings, estimates and supervision. Our obsessions are, therefore, not only destructive artistically but cannot even claim the only merit that would excuse them, that of being cheap.

Apologists have argued, "Oh! but how other-

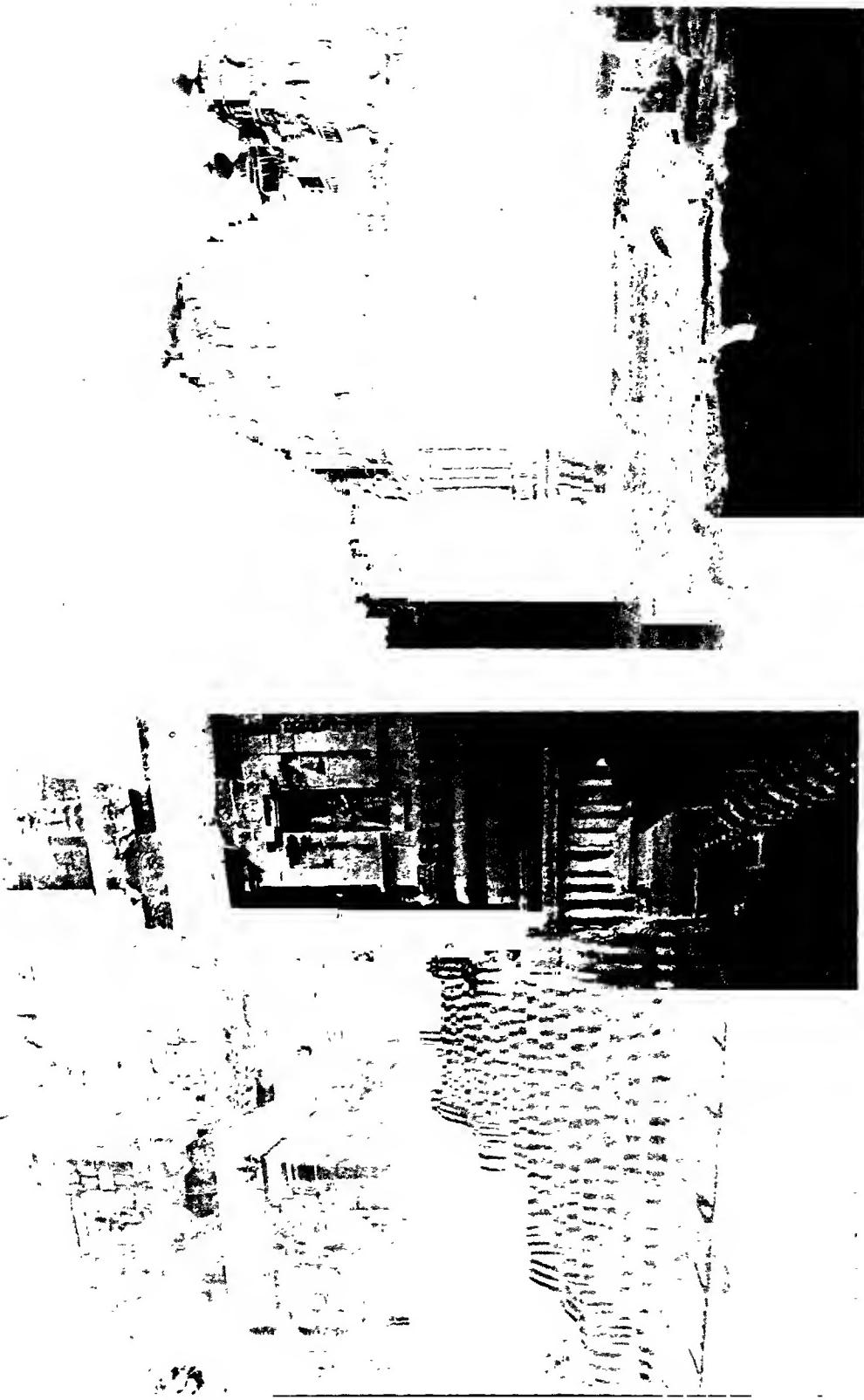
wise can you stop corrupt practices and peculation." As a matter of fact, we stop neither, because no contractor takes up official building except with a view to make as much as he can out of it. It offers him no other interest, whereas the mistries collaborating on a vernacular building are keen on their work and are content with what we should regard as less than a living wage. In some districts I found that no mistri, even one in charge of very great works, received more than R40 per month.

Another drawback to our method is that we have reduced constructive expedients to their crudest forms. Instead of the vault, dome and arch, with thrust distribution and such expedients, we provide nothing but square boxes covered with steel joists and jack arches, which saves thought and planning.

If anyone were sufficiently interested in getting fine work, it would be quite possible to keep within a definite cost limit and yet give sufficient latitude to secure the activities of high-class mistries, who have learnt the art of design on their own buildings and who produce something far superior to the men who are trained, as far as they are trained, on European lines.

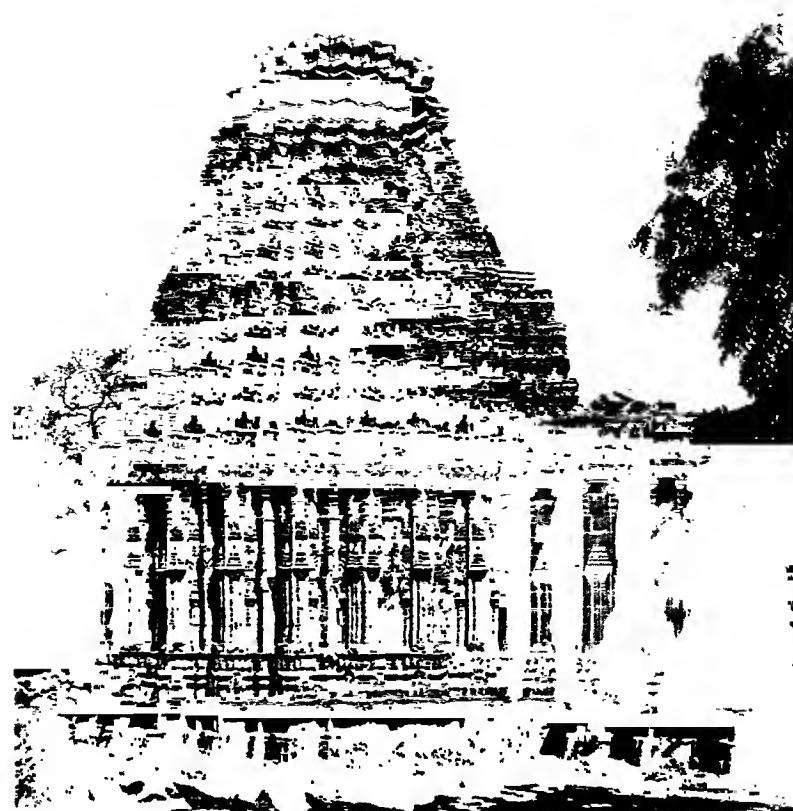
At the same time, we are not to assume that the mistri is impeccable. The Indian has always been very eclectic in his art, and seeing the chaotic condition of modern building in India he is apt to seize hold of the bad as well as the good and to fail by embodying inappropriate elements in his conceptions. This is where a gently restraining hand is of value, not going so far as to suppress fertility in idea, but rather merely to guide in the selection of motifs.

I have tried thus briefly to sketch the existing state of the building arts in India, and will leave this to pass on to a cursory review of the architecture in general. The two main influences that have dictated architectural forms are timber construction (including bamboo) and the rock-cut chambers and temples. We must date the former as earlier than the latter, as even in the rock-cut work there are many indications of wooden construction and the earliest stonework is handled on similar lines. At the same time, we must bear in mind that Indian quarries produce very long stones, in some cases up to 40 feet, of quite small scantlings. These can easily be split off by heat, and therefore it is quite simple to use stone in the form of framed structures. This facility, from the architect's point of view, has been a source of weakness rather than strength, but

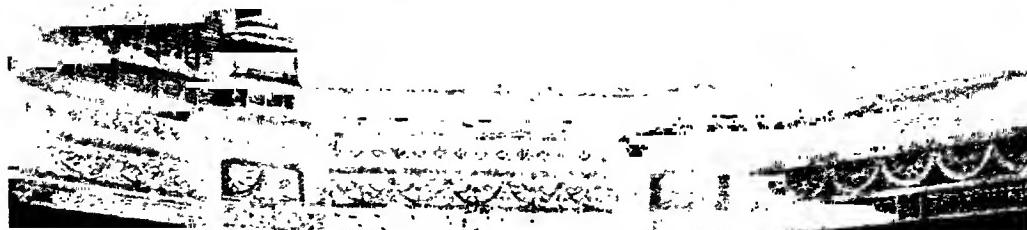


THE TEMPLE OF TANGORE—TYPICAL WORK OF THE TENTH AND ELEVENTH CENTURIES

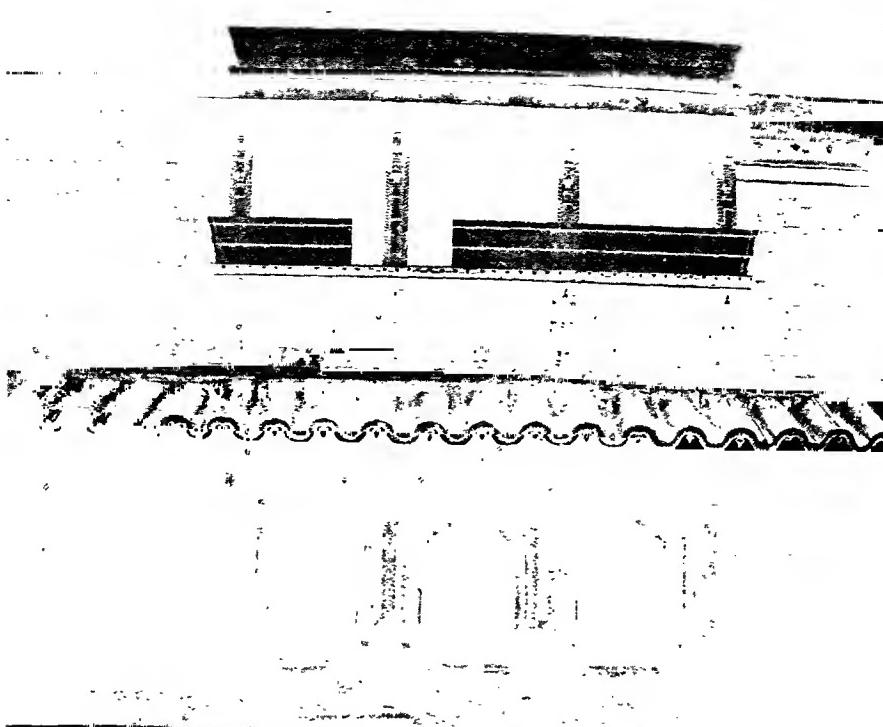
TEMPLE OF PANCHALINGA DEVA, ABOUT 1100 A.D.



VIEW FROM SOUTH-WEST OF THE SHRINE WALL AND SIKHARA OF THE TEMPLE
OF DODDBUSAPPA AT DAMBAL



BAI HARIR'S WELL, AHMEDABAD, 1501 A.D.



PALACE OF RAJA MANSIGH, GWALIOR—EARLY SIXTEENTH CENTURY



A STREET IN LASHKAR, GWALIOR—NINETEENTH CENTURY



NINETEENTH CENTURY STONE-BUILT HOUSES, LASHKAR, GWALIOR



DOMESTIC ARCHITECTURE. A STREET IN BARODA

ARCHITECTURE AND ARCHITECTS IN INDIA

the genuine feeling for composition shown in Indian buildings goes a long way towards disguising minor illogicalities of structure.

The rock-cut work initiated a vigorous and strongly characterised type of design very definitely retaining the effect of stratification, which enabled most complex treatment of decoration to be employed without loss of strength and stability in the general effect.

The arch took a place in Indian architecture late in its development ; how far it was an indigenous development and how far imported is still a matter of argument. While the question is clearly capable of settlement, the scope for investigation is too wide to be dealt with at the moment. Without discussing this further, I may express my agreement with those who claim that the arch has been embodied in a style which, whatever its origins, is now homogeneous and definitely Indian, a style possessing many qualities of grace and proportion, even if it appeals to us to a less extent than the older and more virile developments.

To our taste most Indian buildings are over-enriched, but I would point out that those enrichments all have a meaning to the Indian mind, and that they are not barbaric but proportioned and distributed on a strictly architectonic basis. I think you will agree that no style shows a higher standard of skill than the Hindu architecture up to the seventeenth century in the distribution of masses, the proportions of solids and voids, and the surface treatment with a view to contrasting the plain and enriched. When foreign styles were introduced, and the traditional work underwent modification in the attempt to assimilate these, there have naturally, at times, been failures in technique, but these are certainly no more evident than those we find when, say, the Classic revival impinged on the Gothic tradition in the sixteenth century in Europe. In fact, the architectural development remained much more consistently continuous than with us, and has continued up to the present day not, it must be admitted, without numerous lapses owing to a too eager desire to incorporate every new element, but still exhibiting vitality and imaginative power.

It is this imaginative aptitude, which, inadequately restrained by an appreciation of the logical basis of expression in architecture, is responsible for the wild efforts that tend to throw discredit on the soundness of present-day Indian art, but to my mind much of this madness seems less distasteful

than the banalities we have perpetrated in endeavouring to erect buildings based either on an inappropriate style or an imperfect sympathy with the local tradition.

In passing before you a sketch review of the progress of Indian architecture during the last 1,000 years or so, the impression will be confused unless some general idea can be found as a basis. Now, if it is not stretched too far, I see a certain parallel between it and European developments during the same period, placing southern India in the position of northern Europe and Persia in place of Rome, with this striking reversal that the vernacular architecture was trabeated and the immigrant one arcuated. The first for a long time developed itself independently of external influence. Then the Saracenic gradually spread southward, taking time for assimilation, much as the Renaissance driving its way northward in Europe was for a long time coloured by the methods of the Gothic tradition. At Ahmedabad we see a conflict of the same type as in our Jacobean work, but here the earlier traditions have held their own to the greater extent and have never been so fully driven out as our Gothic ones were by those of the Renaissance, and ultimately the two styles reached much more nearly to a complete fusion than was the case with us, though less so than in other places.

A few illustrations will at this stage enable me to indicate my meaning more clearly.

I am including none in the style recognised as Indo-Saracenic, as in my view this has run its course, and no attempt should be made to revive it except in cases where a lack of harmony with the surroundings would result from the adoption of any other treatment.

My first illustrations show the general trend of Hindu architecture during the period I mention.

Following these, I give a few illustrating the traditions in the more characteristic Hindu temples, those of the south. Then a few of the palaces, and, finally, some examples of street architecture of the last century, which was very distinctive in its character and which, though generally employing wood, affords useful suggestions as to the appropriate type of design for such buildings at the present time.

You will naturally ask how it is now possible to reconcile all the conflicting demands of the present very complex state of Indian polity. We have these demands ranging over every degree, from such as

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

we get at home to those on strictly traditional lines, as in the religious architecture of the temples. In between the extremes we find a series, comprising buildings for official, educational, manufacturing and commercial purposes, all of which come nearest to the European ideals, subject to the variations demanded by climate ; then residential buildings which run through the whole gamut according to the habit of life of those demanding them. At the other extreme are the religious structures, both Hindu and Moslem, where the traditional methods must remain paramount.

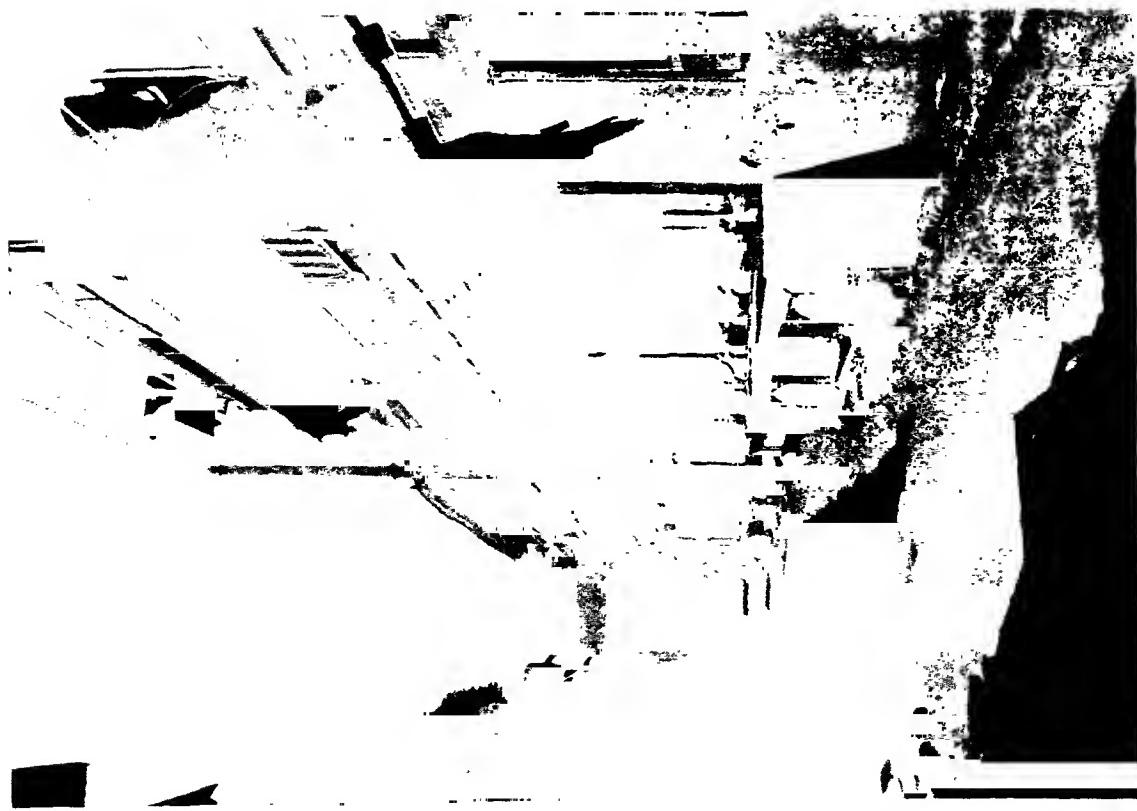
We all recognise that the general structure of a building must be dictated by the requirements it is to fulfil and the material employed, but this structural scheme, though it may not be falsified by its adornment, does not dictate inevitably the exact form in which it shall be expressed architecturally, much of this depending on the feelings and traditions which obtain in regard to architectural expression as understood locally or nationally. In many parts of India these traditions are still so strong that I cannot conceive of any course as a right one that neglects or ignores them. At the same time, it is difficult to see how the architect trained on European lines is to remodel his technique so as to base his methods of expression on those with which he is unfamiliar. He can only be expected to be able to do this if he substitutes as his main objective the study of architectural development in India for that of architectural development in Europe, regarding the latter, which one can hardly advise should be neglected, as an illustrative commentary on the general history of his art.

I see no inconsistency between Indian architecture and the buildings which are in demand there at the present time. It is so flexible in form that the variations involved in the structure of modern buildings are less rather than more in comparison with those demanded in Europe. It is true that the basis of design in India has always been geometrical rather than arithmetical—how, indeed, could the mistri have memorised complicated plans unless by this method—but it is all to the good if we can ourselves build up our schemes on such a basis. Many of the best modern designs owe something to such a method, and we have only to look at some of the finest plans of recent times to see this. Perhaps that of the Hôtel de Ville, Paris, is one of the most illustrative examples.

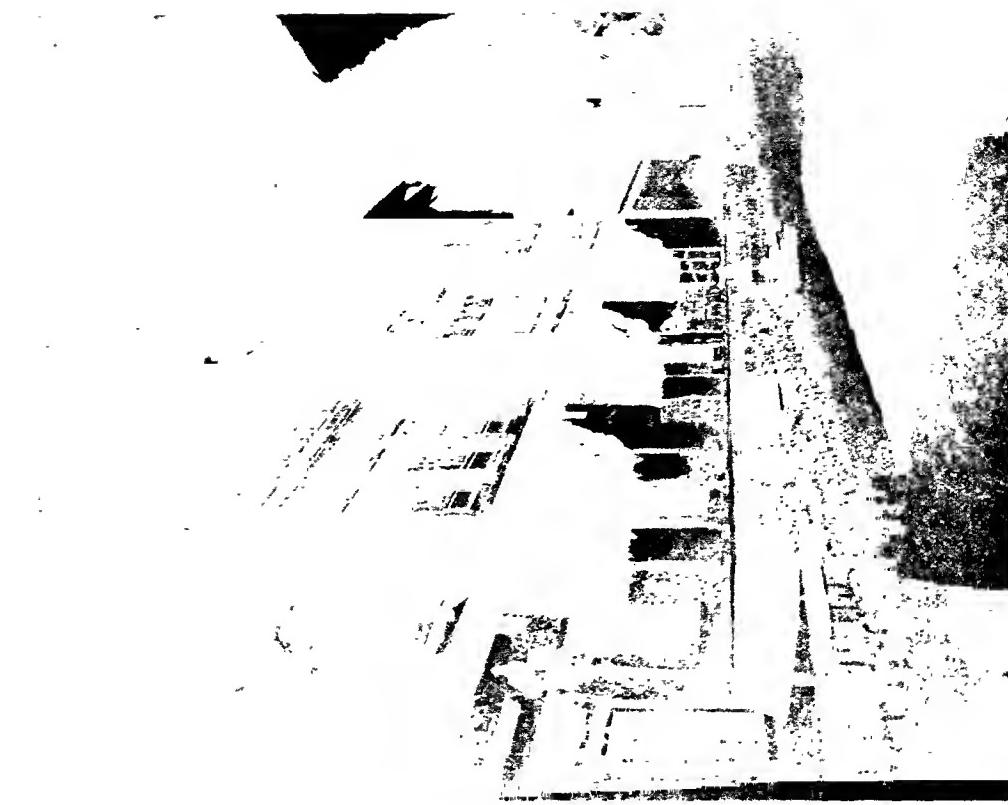
I will pass on to the very vital question of the future of architecture in India. In recent years a very small proportion of the larger buildings reach a high standard, and many are far below mediocrity. To such an extent is this the case that those who appreciate architecture for its own sake generally advocate the restoration of the mistri to his position as designer. Now I have indicated the difficulties of adopting such a course, but at the same time I feel it is disastrous that advantage is not taken of the existence of a body of men possessing in such high measure genuinely artistic perception. The trouble has been that those responsible for building have been incapable of appreciating the essentials of architecture and have framed their methods in such a way as to exclude the collaboration of the mistri. It is true a vernacular treatment is often adopted, but this is done in such a way as to foredoom the design to failure by defining everything on hard and fast lines and insisting on these being adhered to by the workmen.

The Englishman goes to India when his training is supposed to be completed, and then gets very little time to familiarise himself with the essentials of Indian architecture, while the training of the Indian follows much too closely that of the European. If, instead of this, there were architects who had from the first thought of their work only in terms of the Eastern styles, styles that in India only demand a somewhat further fusion to reach a definite basis that could be considered classic, we should have a body of men who could prepare designs in which the suggestions made by, and the workmanship of, the mistri would fall into their places, the first adding interest to the design generally and the second ensuring beauty in the execution of the detail. The difficulty of employing the non-literate but skilful artist would disappear when the directing mind is sympathetic to his employment. We find no difficulty at home in engaging artistic craftsmen whose work will, we think, be an enhancement to our designs, but the degree to which the similar man has in India been excluded from all important works would hardly be believed by those who have not looked into this question.

The buildings organised by us have no sculpture, painting or metal work of artistic merit, though all these crafts are among those in which India has for long excelled, with a tradition always linking them up to architecture widely different from our own



DOMESTIC ARCHITECTURE. A STREET IN BARODA



HOUSE IN UJJAIN

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

traditions in this respect, where it is always something of an effort to bring the sister arts into due relationship. The time seems to be approaching when the architect will have a chance of establishing himself in India, as there is a strong feeling against the continuance of departmental control of works in place of such as could be effected by private agency. This feeling is partly due to a justifiable dissatisfaction with the results of departmental efforts and partly to the aspirations of the nationalist party, who believe that the Indian is prejudiced by official methods. Personally, I rather doubt if the Indian will find any immediate monetary gain by the abolition of official methods, as he himself contributes the bulk of the staff and has always been accustomed to this type of organisation, but in the long run I think it is unquestionable that the substitution of individual effort for an official routine will be to the advantage of both the European and the Indian in bringing to the front those who are best qualified and spurring them on to do their best instead of smothering initiative under a mass of unintelligent regulations. You will, however, gather from what I have said, that in my view the architect for India should have a distinctive training, and that if this Institute is taking steps to offer membership to those who pursue their studies in India, the qualifications should be considered in the light of Indian conditions. As a hard and fast examination has now been to a large extent abandoned, this will be less difficult than it would have been a few years back. Up to the present no architectural school in India has been able to bring its syllabus up to the requirements of the R.I.B.A. for

the partial exemption in the final tests offered in such a case. That of Bombay comes the nearest to this standard, and but for the lukewarm attitude of the Bombay Government towards it, this school might soon be able to claim such a position. At present the demands of its head have been refused by Government on the grounds of economy.

If Bombay and other schools could develop up to the R.I.B.A. standard this would enable Indians to qualify more satisfactorily than by a visit to England, which tends to distract and confuse their architectural ideals.

There remains the problem of those of our men at home who feel drawn towards the East. At present, such architects as go to India are usually chosen too late in their professional career to adapt themselves easily to new conditions. It would be better if they went out, at latest, as soon as qualified, and while at a stage when they would be receptive towards the technique of Indian design. Not, of course, with the idea of immediate practice, but to join an architect, or an office for a while. This would have the additional advantage that those who found the climate or conditions unsuited to them would be able to return without injury to the continuity of their career.

I have tried to be as brief as possible in setting forth the state of our art in India at the present time, and if in so doing I have failed to present a definite picture to your minds, I shall welcome any questions or criticisms directed to aspects that may have been inadequately dealt with, and shall be pleased to do what I can in reply to explain my meaning with more clarity.



HOUSES IN NAGPUR, C.P.

ARCHITECTURE AND ARCHITECTS IN INDIA

Discussion

MR. H. D. SEARLES-WOOD, VICE-PRESIDENT, IN THE CHAIR.

Mr. JAMES RANSOME [F.] : I wonder, ladies and gentlemen, if you have enjoyed Mr. Lanchester's lecture as much as I have. To me it means a great deal, because he has brought back memories of when I was in India 17 years ago, and the questions he has raised are problems with which I was faced when I first went there.

I do not know that I have arrived at entirely the same conclusions as he has, and I think it is difficult for a European really to understand the architecture of the East ; we start from such entirely different points of view. Ours is, and has been, the art of decorating useful and necessary structural forms. Hindu architecture, I think, was more the art of trying to imitate forms which were made first of all in some other material. The first Hindu work we get is in their rock-cut Temples, based on their old wood, bamboo and mud structures, which have long since disappeared. From these they began to work in stone, but in the mass ; that is to say, they worked their way into a solid chunk of stone and made a building of it ; and they worked backwards. When they came to put their stone together they made forms which are to us distinctly unpleasing. I do not think I know a Hindu building in India which I can say has pleased me as regards form. They then started to decorate these forms, and they decorated more and more until their buildings became a mass of decoration. When we look at these closely, we see what past masters of decoration they were. Their works are wonderful in beauty of sculpture, in which quality I doubt if they have been surpassed ; you may feel that from the pictures you have seen. And then came the Moguls. They were builders, and they came amongst a nation of artists who understood how to beautify buildings. To me, the best of the Hindu-Saracenic is as beautiful as any architecture which has ever been produced ; a blend of the work of a nation of builders who built structurally with the work of the nation of artists they employed. I say the Moguls built structurally, and they did ; they could build magnificently. But they never went so far as we did in trying to beautify their structural forms. The Moguls seem to me to have been rather ashamed of their structural work. If they had to buttress up a building to support a magnificent dome, they hid their buttresses. If they employed an arch they put it into a frame concealing its voussoirs which please the Western eye. And the need they felt for decoration demonstrates that they were missing something. Seen in the distance, these Mogul buildings are fine, massive and impressive, but I do not think they are such good architecture as ours, in which we see each structural part performing its own work. I think the Moguls felt this a little themselves, otherwise I do not

think they would have inlaid and covered their buildings with decoration as they did, though the result is very beautiful. We have been satisfied with less ornament, and some of our buildings are beautiful in their simplicity. That cannot be said of any Hindu work and only of but few examples of the Saracenic.

I fear the views I have expressed may have clashed with Mr. Lanchester's, but this subject is one in which I am intensely interested, and I am sure everyone here will join with me in thanking him for his extremely interesting paper.

Mr. HERBERT BAKER [F.] : I am very glad to follow my old friend Mr. Ransome, and to second the vote of thanks to Mr. Lanchester for his excellent lecture, which, I think, was full of knowledge, experience and insight concerning Indian architecture, as well as full of suggestion. I wondered at the limitation of his period to a thousand years, which is not very long in Indian history ; it excludes what one might call the classic period in Indian art, the Buddhist Asoka period. As he no doubt knows, it has not those qualities of illogicality which he referred to in Hindu and Mogul art. It is real stone architecture, and at Sanchi it stands in all its perfection ; and its sculpture rivals Romanesque and Byzantine sculpture. Mr. Lanchester began his record at about the time of the destruction of art in India ; his period of a thousand years is just before the invasion of the Mohammedans from the hills. We know from Indian history that the universal custom of the invaders was to destroy the buildings and massacre the inhabitants ; and if there were good craftsmen remaining after the slaughter they were carried off as slaves to Afghanistan and Turkestan. As a result the carving—I am speaking of the north of India, I do not know the south—seems to have been done by the less skilled craftsmen working to rote. Then came the blight of the Mohammedan prohibition of the carving of natural objects, and we find forms reproduced the original meaning of which has become lost. Mr. Lanchester has truly put his finger on the essence and origin of much Indian architecture—the rock-cut temples ; and you have to appreciate that in order to understand a Hindu temple. The Orders, if we may so speak of them, are horizontal ones, and often represent the tradition of varying soft and hard strata in the caves. And there is the dominant fact he mentions that the sandstone in the north-west of India splits in horizontal layers. This had an immense influence on the northern architecture. One often wonders what would have happened if the quartzite of Delhi had been a little softer. They might have developed buildings there true to the arched forms ; there are some excellent examples at Delhi built up in true stone con-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

struction in arches and domes, which show the origin of the stalactite pendentives of a very primitive form.

Mr. Lanchester touched on the controversial question of the *mistri*, which is the Portuguese word for "magister," or master-craftsman, and as to how far they can be left in charge or in sole command of buildings. I think they could be so left in the case of simpler buildings of Indian character ; but in that of larger and more highly organised buildings, such as are necessary for administrative and industrial development to-day, their primitive and charming methods are hardly suited. The Indian craftsman is generally a farmer, and he has a delightful and amiable habit, when it rains, of going off to his farm. And he is very bad in giving estimates. So you can imagine the harassed minister answering the rain of parliamentary questions and demands for returns of estimates and retrenchments commissioners hunting the *mistri* to his farm.

Mr. Lanchester mentioned the skill shown by Indians in building vaults and domes, and that is true ; they are built with such skill and ease that this form of construction comes out cheaper than any other. But when you come to a highly organised and complicated building, covering large spaces and big spans, and with many storeys, the spaces taken up by abutments and the weight on the foundation become a serious matter ; and thus it is impossible to carry out these methods of construction in larger buildings which are not of a monumental character.

We are building in Delhi—probably Mr. Lanchester is doing the same in his own work in India—domes and vaults, without centres, to a small span, and as they can use up the brickbats the work is done very cheaply. That was a help to us in Delhi during and just after the war, because we could not get steel.

Mr. Lanchester also refers to the arts and crafts, and quite rightly deplores the absence of sculpture and decoration in modern buildings. That is true and unfortunate, and that is where the Indian craftsman excels. There is a big stone yard in Delhi which employs 2,000 masons, and I was told that whereas not more than 1 per cent. or 2 per cent. of those masons could cut a true cube accurately, yet a large proportion could carve well. This shows where their genius lies.

We are trying to revive the art of tile-making : you know the beautiful colouring of the old tiles. We had tests made of old and new samples at South Kensington, and we found that the difference between them was that the new ones were made of pure material, whereas in the old ones impure materials had been used, and it was this impurity which produced the beautiful colours. The Government of the Punjab took an interest in the matter, and sent down and found an old family in Mooltan who had been making these tiles for generations, and persuaded them to come up to Lahore, built a kiln and provided all accessories and materials for

them, and set them to work. But in a few days they disappeared into the desert whence they came because, as they said, their secret was being copied ! Some of you may remember that when certain architects were appointed to New Delhi a petition was got up by distinguished people in England petitioning Parliament that master-craftsmen instead of architects should be employed. The Government of the day sympathised with the idea so far as the crafts were concerned, and arranged that a School of Crafts should be established at Delhi to carry out the craft work in the new buildings. Unfortunately, the war came, and then the post-war stringency ; and since then something worse still, in the form of a Retrenchment Committee !

In regard to the question of the future, which Mr. Lanchester very rightly raised, the future of architecture in India depends very much on the political situation, and that depends a good deal on finding a meeting ground of the ideals between East and West. It cannot be wholly West, nor, I think, wholly East. As we look forward to some happy marriage between the two ideals in politics, so must we also in the matter of architecture. I think there should be an opportunity for English architects who will work on the basis of the more elemental, simpler forms and principles of their art in architecture and the crafts, and learn how to graft on to them the best features of Indian architecture adaptable to the climate and sentiment of India : there are many. They must learn to exhibit restraint, which is not too common in Indian art. If architects go out there they should go young, when they are malleable in mind and constitution. They must have very good health to withstand the climate, and the vitality and spirit to carry them through the enfeebling effects of the six months of hot weather. In addition, they must have in themselves something of the missionary spirit and the sense and the spirit of public service, if they hope to create a renaissance of Indian art.

Professor BERESFORD PITE [F.] : This is a very important subject to the Royal Institute of British Architects. It is important that we should, on behalf of Great Britain, extend our sympathy and our knowledge and our work to cover that part of the demands of the British Empire which is represented by India. I think it is an opportunity for pleading for some special consideration for those members of our body who are practising in India, and for the extension of some union between ourselves here at home and those who are members of our body there, with many other practitioners of architecture, not only English but Indian, in India itself. Of course, it is obvious that what is true of the British Empire in India is equally true of the British Empire in Africa, and in Canada, and in Australia. If we can but enlarge our architectural conception to the breadth of the British Empire, I venture to think our ideas of architectural education and qualifica-

ARCHITECTURE AND ARCHITECTS IN INDIA

tion will have to be extended too ; the sooner they are, the better. It is not very long ago that the Australian Commonwealth Government issued an appeal to architects to consider the problems connected with the creation of an entirely new capital city and a new architecture at Canberra. But as the Inchcape " Axe " has fallen on Mr. Baker's hopes for a craft movement to furnish the great buildings with live details in India, so the war fell with devastating effect on the dreams of architecture for a new capital city for the Commonwealth.

But the problem is not only a problem of the British Empire in the new, but also with the ancient world in India, and it is one of great philosophic interest ; it is a problem that demands the most careful attention and thought. One is a little amazed—if not shocked—to find the personal standard of individual taste and sense of proportion and fitness in which we have educated ourselves in this little corner of the West applied to the historic architecture of India. I can sympathise with Mr. Lanchester's outlook, but I was amazed at his drawing attention to the fact that the Hindus had any idea of the value of sculptured ornament at the base in order to give an effect of simple breadth on the next course, then revert to methodical concentration, and weave the appropriate fittings at the top. Those ideas are limited, and they did not trouble us until forty years ago. Mr. Baker threw some cold light on it when he suggested there was a certain logic in the fact that where a stratum of stone was malleable it was carved, and where it was not malleable it was not carved, and when the stratum repeated itself you got the ornament. That is the logic of geology, which we can well understand, rather than a singular and wonderful harmony of artistic intuition in Indian and in European architecture, which I do not think exists. I should like to understand a Chinese joke, what it is that makes a Chinaman laugh, and in a like manner what is the spirit of art which an Indian idealist expects and desires to express. The subject cannot be dealt with from the point of view of our local standards, nor on the ground of our individual tastes. Some wider ground must be sought before we can understand Indian art in itself, or our relation to it. For that reason I urge it is part of our duty to consider the educational apparatus and equipment that we possess in England for the exercise of architecture in India. Probably a special Committee of this Institute could take up the whole subject, in conjunction with a number of sympathetic experts in Indian life and work. I might mention, incidentally, that the University of Cambridge, in connection with the Architecture Schedules which were settled before the war, arranged an Examination in Indian Architecture, in order that Indian students in Cambridge who were studying architecture in the University could be examined in the architecture of their own country. And there has been already one candidate there who was

going to live in India, and who sat in the examination, and passed. The giving of educational direction in that matter is a great work, and it will have to be done before we can represent the needs of architecture in that part of the British Empire, India.

Turning to another aspect of the subject, it is very interesting and pleasant to have such a lecture as we have had to-night, and to be shown the picturesque and important views, though I confess I think Mr. Lanchester's selection has been a little too loose, if I may be permitted the term ; his rough classification did not go far enough back. Mr. Baker, I think, has already pointed that out. I should have had it linked up with the West, with the time of Alexander and his Indian expedition, and that fascinating subject which links up at once our studies at home with the reflection and the action of Greek art with the sculptured art of Northern India, as well as the other very important link which exists at the other end ; the relation of Chinese art with the art of Northern India. Fergusson's remark on the extravagant wealth of ornament in Southern India was that we are face to face with a population abundant in numbers, amply provided with food, and with nothing else to do but to cover with intricate decorations the mountainous erections in their temple courts. That is interesting because it touches the economical aspect both of buildings and of ornament. And the great architecture of Akbar and the Mogul period and that of Amenabad are phases of the subject which, as Mr. Ransome pointed out, are important phases in which we get life and vigour in construction, combined with the traditional ornament of India.

I have much pleasure in supporting the resolution of thanks to Mr. Lanchester for his lecture.

Sir LIONEL JACOB, K.C.S.I. : I have been greatly interested in Mr. Lanchester's Paper, and the moral of it is—as it comes to me—that in the opinion of the lecturer there are many Indian master builders in India who have only to be called into requisition to save the present and future position of architecture in the country. It is on that particular point that I propose to speak.

Mr. Ransome has mentioned the two distinct types of indigenous architecture in India—the Hindu and the Indo-Saracenic ; and as Mr. Lanchester considers that the latter should not be revived, it is with the former that we are mainly concerned. Hindu architecture is either structural or excavated ; and when the Hindus began to build in masonry they never seemed able to forget that they were not building in wood ; and, further, having discovered their marvellous skill in sculpture, as evidenced by their rock-cut temples, it seemed to be their desire to build acres and acres of masonry in order that they might exhibit their sculptural skill upon it. I agree with Mr. Ransome that it is in these directions that their architecture fails. But even

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

so, the question is whether there are any master builders still in existence.

In that connection it is interesting to recall that about ninety years ago the Asiatic Society approached a man, Ram Baz, a native of Madras, with a view to an essay on the old art of Indian building which it was supposed was dead. Ram Baz was not an architect, but he was a Sanscrit scholar and an intelligent man in many ways. He endeavoured for his purpose to find Indian builders to whom the old oral traditions had been passed down, and he failed. But still there were the old Sanscrit treatises on architecture, sculpture and the kindred arts, collectively called the *Silpa-Sástra*, *Silpa* meaning manual art and *Sástra* science, which Ram Baz proceeded to translate. In the matter of dimensions, the treatment can only be described as fantastical. The smallest dimension is that of the atom, the little speck seen in the reflected light of a sunbeam. Eight of these atoms go to a grain of fine dust, and eight grains to the point of a fine hair. The text then describes the many qualifications of architects. To be competent the architect had to be a man of unblemished moral character, generous, truthful, sincere, and free from envy, malice and all uncharitableness. I like to think, Mr. Chairman, that all the Fellows and Associates of this great Institute possess that moral rectitude, but I nevertheless think that if you had to define the qualifications of a competent architect you would use other words. Then the treatise went on to say that the shape of the site was important—it must not be circular, nor semicircular, nor like the back of an elephant, the tail of a fish, nor the face of a cow. The ploughing of the site was also important—the site had to be ploughed many times, the plough had to be of a certain form and of a certain wood, and the colour of the oxen was important, and their eyes should in shape be that of the petal of a lotus. Then, after descriptions of the sacrificial methods of the priesthood, we come to matters of design, base, pedestal and entablature, and might reasonably hope for something more definite and tangible. But the text is almost unintelligible. Ram Baz was forced to admit that much of it came to him like the darkest oracles, and that much of it was written as if it were deliberately intended to confuse. For practical purposes, it cannot therefore be said that the old writings possess any value.

Now let me go back for a moment to the Moguls. There had been many previous Mohammedan invasions of India, but in the sixteenth century the Moguls came and established an Empire. Babar was the first Mogul Emperor, and he was a splendid fellow, a gallant fighter, fond of art, fond of all the good things of life, and in his memoirs he says that he found no architecture in India. The statement makes us pause to think, and if we think we can probably gather what Babar had in mind. He was doubtless familiar with Hindu sculptural art, but architecture, as the Moguls deemed it, was another

affair. To Mohammedans graven images were anathema, they thought of mass and line and composition in a way that the Hindus never did, they did not disregard ornamentation, but instead of sculpture they used colour and inlay. Still the beauty of the Mogul buildings lies rather in general symmetry and rhythmic relation of part to part than in jewelled inlay. It has been said of the Taj that if plastered with whitewash, obscuring the glories of its material, it would remain a thing of beauty and a joy for ever; but eliminate the wonderful sculpture of many fine old Hindu temples, and there would be nothing left but the external and unlovely form. Babar did not build himself—he was too busy, but his grandson, Akbar, built Fatehpur Sikri, and Akbar's grandson, Shah Jahan, built, among other beautiful buildings, the Taj Mahal of Agra, which is the masterpiece of Indo-Saracenic art in India. The Taj was completed about the time that Shah Jahan was succeeded by Aurangzeb, 1658, and from that date there was a very sharp decline in all Indian art.

We have a common saying that "no one is ever missed," that when a man dies there is another, just as good, to take his place. But like many other sayings, it is only half a truth. The Greeks, who taught the world so much, were, among other things, the founders of mathematics. About two thousand years ago there were Euclid, Apollonius who wrote on conic sections, Eratosthenes who calculated the diameter of our earth with approximate accuracy, Hipparchus who made the first star map, Archimedes the equal of our Newton, and others. They were almost contemporaries, and they passed away, and thus for about a thousand years mathematics was dead. Architecture, like other sciences, has its oscillations of the pendulum between progress and retrogression, and in 1658 there came the decline from which Indian art has never recovered.

What, then, are we to do? We cannot recall the Indian master builder any more than if this Institute ceased to be we could recall in England the men who built our glorious old cathedrals and the Henry VII Chapel at Westminster to take the place of our modern architects. We live in a utilitarian age, and we cannot reproduce the old art at a fraction of the cost, nor have we the time. Mr. Lanchester has made some severe comments on buildings in India, and the criticism is just; but if there are cheap and ugly box-like buildings, we have to remember that there is another aspect to the case. If the British had acted like the Moguls, they would have built great cathedrals and other monuments to their glory at the cost of the blood and tears of a conquered people; but they worshipped in cheap, barn-like churches, they lived in cheap houses, and worked in cheap offices, and for the benefit of the people they spent money in other ways. I believe that I am correct in saying that the Taj and the great Ganges canal cost

ARCHITECTURE AND ARCHITECTS IN INDIA

about the same. The Taj is a beautiful building, but after all it is only the tomb of a Mogul queen ; and it is not a very large building—its base is a square with 186-feet sides, and its height from plinth to pinnacle of dome is about 200 feet. The Ganges canal represents an immense irrigation system : the main line taking off from the Ganges river carries about six times the volume of water passing in the Thames at Teddington, the canal channels in aggregate are over 3,000 miles in length, they convey water over a vast tract of arid country ; the work saves the country from the appalling horrors of famine, it brings comfort to thousands and thousands of humble homes, and lies in the direction of a greater civilisation than the old world had ever dreamed. India is now suffering under serious financial stress, the Inchcape Committee is devising means of retrenchment, the country requires more canals, more railways, more roads ; and in that position, though Mr. Lanchester is of opinion that we attach too much importance to paper designs and estimates, we cannot disregard them. We have heard a good deal to-night about the Indian mistri, and it would be strange if, after thirty-six years of India, I were not familiar with the mistri, whether blacksmith, carpenter or mason. He is an excellent craftsman, but I have never met a mistri master builder, and it is not to him that we should look for the salvation of architecture in the future.

I venture to think that Mr. Ransome, the first Consulting Architect to the Government of India, was right when early in his tenure of office he came to the conclusion that the hope of the future lay in the evolution of an Anglo-Indian style in the hands of qualified architects. He himself worked in that direction, employing both Hindu and Saracenic details through the medium of suggestion. His successor, Mr. John Begg, went even further, and adapted the Indo-Saracenic style of Bijapur to modern requirements. Many other architects have been thinking on the same lines, and at the moment we have the eminent architects Sir Edwin Lutyens and Mr. Herbert Baker constructing the great buildings of New Delhi in a style which is suggestive of both East and West. It is true that, in the present state of affairs in India, the Indian builder may come to the front soon enough, but it is not my intention to enter into politics, nor do I wish to be unduly pessimistic about the future. I should like to think that the reformed Government will prove a success, and inasmuch as it is a Government of British and Indians working together in united endeavour, I cannot help thinking that our architects are right in aiming at the evolution of an Anglo-Indian style which will give the association of East and West appropriate and adequate expression.

Captain G. S. C. SWINTON : I came to listen ; I had no idea I should be called upon to speak, especially as I am not an architect. But I have had the advantage of being in India, and it was a great advantage to me,

with only a knowledge of architecture such as is possessed by the man in the street, to see the buildings there. I think there is one thing that people who have not been to India and only know the buildings from pictures do not realise, and that is the intensity of the shadows ; much is in that way hidden. The shadows look as if they had been cut with a knife. We do not see here the effect of overhanging eaves. Neither do we realise the intense desire to escape from the hot sun into the shadows. What struck me about the architecture now being evolved out there by the art, partially, of Mr. Baker and Sir Edwin Lutyens, is the effect they are producing by overhanging masses of black. This gives a magnificent result. We were shown one photograph of a great building standing on a rock, with much decoration on top, and a cliff-like wall below ; to me that effect is magnificent. That is the kind of thing, I think, that we shall get in the new buildings in Delhi.

I have learned something to-night from Mr. Lanchester's lecture. I was in India thirty years ago ; I also went on the Delhi Commission twice, and learned what I could about architecture, and I have done my best to follow up architecture since. I hope something will be done in India to evolve a form of architecture which will have the advantages of both East and West ; I think we can hope for it, and I believe it is coming along. Mr. Lanchester, Sir Edwin Lutyens, Mr. Baker and Professor Geddes are, among them, teaching the Indians something which, I hope, will be to the advantage not only of India, but also of the whole of the British Empire.

Mr. H. V. LANCHESTER (in reply) : I wish I could merely say a word of thanks, and have done with it ; but some things have been said to-night that require, in one of my pugnacious temperament, some answer.

The first point is as to why I did not deal with the earlier periods of Indian architecture. I was not attempting to give a history of Indian architecture—such a thing would have been out of the question. I was trying to present some illustrations, more or less in chronological order, of the types of Hindu architecture which, I thought, bore on the problems of the present time. In order adequately to illustrate Indian architecture I should have had to show not a mere dozen and a half of slides, but twenty dozen.

Professor Beresford Pite said I was still looking at India with the eyes of a European. Well, I am afraid I can hardly avoid that ; but I did not think I was doing it so definitely as the Professor suggested. I imagined I was appreciating in Indian architecture points which are good in all architecture, and also having some regard to the influences under which it has evolved.

With regard to the influence of Alexander and the Greeks on Indian architecture, I confess I think that is a "wash-out." (Professor Pite : I was referring to

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

sculpture.) Then perhaps we are agreed. The only pseudo-Greek work which got into India was inferior to the work done elsewhere by Hindus.

I excluded Mogul architecture from my paper, because I regard it as immigrant, not as a legitimate exposition of Indian architecture. Subsequently it cut out a definite ring fence of its own.

With regard to Sir Lionel Jacob, I am rather more at variance with him. Ram Baz was a lazy man who sat at home and would not take the trouble to go 400 miles to find a mistri. But the master mistri was not the workman mistri. Master mistries exist; I showed you a photograph of one. I have seen 200 or 300 workmen working under a mistri, who is solely responsible for the design and the carrying out of the work, and there was no European within a dozen miles of the place. So he is not a fiction, but a fact.

Criticism has been made of the Hindu composition and proportion. With regard to what I consider essentials of architecture, in spite of the charm and beauty of the Mogul buildings, I think the Hindu sense of proportion and composition, and light and shade, and the distribution of ornament was far superior to any Mogul work which has been built in India, and I think I could prove my case.

I am against any idea of what has been called Anglo-Indian architecture; I think that would be heading straight for disaster. There is sufficient tradition in India to work on. I am not now speaking of the Gujerati tradition. You can take the fine things of the south of India, and even the architecture which has been influenced by the Mogul work in the north, as a definite tradition to work on, and I should like to see the architects of India working along Indian tradition, except in the case of the seaport towns, which are Europeanised already.

And I was practically accused of wanting to spend on fine architecture money which ought to be used for such works as the Ganges canal system. I do not want to take money away from any such schemes. I maintain

that our methods are dearer, and not cheaper, than the traditional ones.

I thank you very much for having listened to me.

The following letter has been received from Mr. E. B. Havell (the author of "Ancient and Mediæval Architecture," "Indian Architecture," etc.):—

I am very sorry I shall not be in England on the date of Mr. Lanchester's lecture.

If I could have taken part in the discussion I should have tried to emphasise a point which I am sure Mr. Lanchester will bring out in his lecture—that architectural work in India has an extraordinary interest on account of the existence of an hereditary building craft with a great historic tradition behind it, and so much alive that even at the present day native builders without European supervision occasionally put up buildings which compare favourably with fine architecture of Mogul times. I would mention particularly a mosque now under construction at Bhopal which, so far as it is completed, is better architecture than Shah Jahan's great mosque at Delhi.

The existence of such a living building tradition gives the European architect opportunities and advantages which he does not enjoy in Europe. It also imposes upon him, especially if he should be in Government service, a special obligation, for it cannot be disputed that such a vital craft tradition is an invaluable artistic and economic asset which India cannot afford to neglect or depreciate. In this respect the Indian Public Works administration has not served India so well as it might have done, architecturally, economically and socially. But lately Mr. Begg, as Consulting Architect to the Government of India, has worked hard to bring about the effective collaboration between the European architect and the Indian builder which has been wanting in the past.

That such collaboration would promote a healthy growth of the art of building both in India and in Europe, and help to solve some of India's economic and social problems, I have not the slightest doubt. The argument often brought forward that the European must impose his own architectural views and methods upon India, and continue to live in a state of splendid isolation in order to maintain his position there, can hardly be taken seriously by anyone who understands Indian conditions.

PUBLIC LECTURE

Architecture : A Necessity—or a Luxury ? *

BY H. S. GOODHART-RENDEL.

The title of this lecture asks a question : Is architecture a necessity or a luxury ? It is rather a silly question perhaps, since any answer to it must depend upon what you call a necessity and what you call a luxury, and I do not suppose that any two people agree absolutely about that. It also depends upon what you call architecture—and architecture is a word which is used to mean a great many different things. I chose the title, however, because it seemed to me to suggest, better than any other I could think of, the nature of the ideas which I wish to put before you to-day.

In fact, if I may be allowed to assume certain perhaps rather arbitrary meanings for the words architecture, necessity and luxury, then my title will do very well. The meaning which I shall assign to the word architecture is so essential in my theory of the place of architecture in life, that I shall wait to define it until I come to speak of that theory. Before doing that I must define my meanings for the other two words and clear them out of the way.

By "necessity," then, I shall mean an indispensable thing. By "Is architecture a necessity?" I shall therefore mean "Is architecture a thing which cannot be done without?" There is also another less common meaning of the word "necessity," a meaning which in dictionaries is marked "rare." The word is sometimes used for that which cannot be avoided, in the same sense as that in which we speak of the "necessary consequence" of this or that. To say that the necessary consequence of too much champagne is a nasty headache next morning does not mean that we could not do without the headache ; it means that we are going to get it. I want to take advantage of this secondary meaning of the word "necessity" and add to my question, "Is architecture a thing which cannot be done without?" the subsidiary question, "Is architecture a thing we are going to get whether we can do without it or not?"

By "luxury" I shall mean a thing which is desirable but not indispensable. By "Is architecture a luxury?" I shall therefore mean "Is architecture a thing which can be done without, but which it is natural to want to have?"

The answer to these questions, as I have already said, must depend upon what you call architecture. And architecture is not an easy thing to define. As with so many things, it is much easier to say what it is not than to say what it is. In the search for truth, however, often the easiest road commands the longest views ; difficulties are apt to obstruct our vision. Let us therefore enter upon our quest by eliminating some of the false definitions which otherwise might tempt us from our course.

* A public lecture delivered at the R.I.B.A. on 15 March 1923.

In the first place, then, architecture is not a mere mitigation of the brutalities of building. Its function is not that of clothing and adorning that which would be ugly unadorned. Mr. Bernard Shaw, I think, once said that some people regard Art as "a costly ring in the nose of Nature." This is an extremely accurate simile of a common mental attitude. Many people think of Nature as the sort of animal that one would expect to wear a ring in its nose. This nose-ring of Art will frustrate its most disagreeable propensities, and may, if one wills, be made a handsome thing in itself. When it was first proposed to bridge Ludgate Hill with the railway viaduct which now blocks out the view of St. Paul's, the company proposing it was compelled to promise that the viaduct should be "architectural." This promise it was held to have kept by the liberal application of scrolls and shields to the design already prepared by its engineer. The result is not successful. Without its ornaments the bridge would have been ugly, with them its ugliness remains unchanged. The ornaments in themselves are certainly not very beautiful, but that is neither here nor there. The addition of ornament will often, I think, convert comely building into architecture, but with uncomely building no ornament will fuse and no amalgam result. Perhaps the only absolute rule with which all works of art must comply is that of consistency—no work of art can be at war with itself. If the structural design of a building flout the spectator, the attempt of ornament to capture his fancy can but add to the insult offered him. Whatever architecture may be, it is not the jam round the rhubarb.

It is a hackneyed quotation from Sir Henry Wotton that "Well-building hath three Conditions ; Commodity, Firmenes and Delight." Essays upon the nature of architecture are apt to open with these words, followed by a statement that architecture and Wotton's word "well-building" are two names for the same thing. With this statement I do not agree. I can imagine no room much less fit for the purpose of holding a large number of books than the Radcliffe Library at Oxford, yet nobody would say that that majestic rotunda was not a work of architecture. The arcades of the Alhambra at Granada have been falling about ever since they were first rushed up, yet they are one of the architectural glories of Europe. Wotton would have considered, rightly, that neither the Radcliffe Library nor the Alhambra was an example of well-building ; the Radcliffe Library has not "commodity," and the Alhambra has not "firmenes" ; but we cannot be so foolish as to deny their claims to be architectural objects. These claims are based upon their possession of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the third and last of the qualities of well-building—that of “delight.”

After all, when all is said and done, the fine art of architecture is an art of appearances. I do not mean by this that it is an art of deceit, an art of fictitious appearances. True appearances are usually more desirable than false ones, but the relation of appearances to reality is governed by considerations not strictly architectural. A building to be a good one must be convenient and strong—fit and firm, and it may be that its convenience and its strength will make it beautiful, or, in Wotton’s word, delightful. It also may be that its convenience and its strength will make it nothing of the kind. If a man told me that he thought the architecture of Queen Anne’s Mansions beautiful I should entreat him to consult a mental specialist. Yet Queen Anne’s Mansions are, I believe, quite convenient and strong. Under certain conditions of light, no doubt, they can look beautiful, just as on a frosty day a red nose can make a fine spot of colour. But any beauty which they may wear at times is an accidental vestment, a thing of chance, and not that which properly belongs to a work of art. Of such fortuitous beauty I shall have more to say later on. At the moment I wish only to express my disagreement with the theory held by some people that if a thing be perfectly adapted to its use it is entitled to be called beautiful. Those who talk of the “beauty” of machinery ought to rave about the beauty of the best-designed machinery in the world—the liver and the stomach. But they don’t, or at least I’ve never heard them do so. I have no doubt that they really do get more pleasure from looking at the engine of a motor-car than from looking at the façade of the Automobile Club. But that is not because they find the engine the more beautiful, but because their emotions are more readily touched by efficiency than by beauty. They use the word beauty in the sense in which we speak of an efficiently blacked eye as a “beauty.”

The Radcliffe Library, the Alhamhra and Queen Anne’s Mansions, then, each display only two of three necessary attributes of “well-building.” The Radcliffe Library, which has “firmenes” and delight, and the Alhambra, which has “commoditie” and delight, are both works of architecture; while Queen Anne’s Mansions, having only “firmenes” and “commoditie,” are, I suggest, not a work of architecture. It would seem, therefore, that the qualification for being considered as architecture must reside in this attribute of “delight.” Without it architecture cannot be. It is of the essence of the art. Not only of the essence, but the essence itself. The stage palaces of Bibiena, of Inigo Jones, or of Mr. Leon Bakst would often, I think, be a little inconvenient for even stage courts to inhabit, and in matters of construction their design is frequently—shall I say optimistic? But surely they are works of architecture of a very delightful kind.

I do not mean to say that anywhere save on the stage or in the field of pure decoration architecture, thus distinguished from well-building, is self-sufficient. But I do mean to say that to build soundly and reasonably is not to make architecture, although it may be to lay an excellent foundation for it. Our physical needs demand that the shelters we build for ourselves should be strong and convenient, but our emotions hunger for something more than security and comfort. We wish by art or artifice cunningly to intensify the secure appearance of that which we would should be secure, the comfortable appearance of that which we would have comfortable. Having done this, we generally wish also to exercise our fancy in adornment. And it is not until we do these things that we begin to practise the art of architecture.

Architecture, as I see it, is not the art of building strongly, nor that of building cleverly, nor that of building economically—but the art of building beautifully. It will generally be the better for a foundation of strength or cleverness or economy in building, but it can do without these things, it can exist on canvas and paint. It may occupy itself with bringing out the flavour of good building, it may use good building merely as the framework for elaborate and arbitrary arrangements and decorations, or it may, as with the Arabs, confine its attention to arrangements and decorations, and leave the framework to chance. I do not defend this last alternative, but I can only condemn it on grounds which are not architectural. Thoughtless people constantly tell you that decorated construction is a mark of good architecture, and constructed decoration a mark of bad, a dogma which means either nothing at all or that every traceried Gothic window, every pedimented classical doorway, is a sin against art. Any decoration in three dimensions has to be constructed more or less: you are constructing decoration when you tie flowers and leaves into a garland, you are constructing decoration when you build long stones into your wall and leave them sticking out for the carver to shape into ornaments. Constructed decoration is as much an ingredient of good architecture as is decorated construction. What makes bad architecture is when the construction and the decoration are visibly in conflict with each other.

Visibly in conflict, I say: hidden conflicts, if completely hidden, cannot affect an art of appearances one way or the other. Let me bring forward, in illustration of this, two of the most famous shams in architecture—the colonnade of the Louvre and the exterior of St. Paul’s Cathedral. The colonnade of the Louvre, which seems to me the most beautiful building which I know, is a work of decoration very much at variance with the nature of the structure to which it is applied. But this fact is kept secret from the spectator; nowhere is there any visible indication that all is not as it seems. Our estimate of the beauty of the work can therefore be made

ARCHITECTURE : A NECESSITY—OR A LUXURY ?

undisturbed by any discordant thoughts. The exterior of St. Paul's Cathedral is an ornamental screen even more at variance with that which lies behind it than is the Louvre colonnade. Here the secret is very far indeed from being well kept ; where the design would lead you to expect windows you find niches, and where the design would lead you to fancy windows impossible windows occur. Our satisfaction with the beauty of Wren's design must always be interrupted by the visible conflict between construction and decoration which it displays. If beauty be only skin deep, the skin must not be too transparent.

Architecture, then, if it so choose, may run counter to the facts of building, or may simply ignore them. Normally, however, it will do best if it look among those facts for the raw material of its expression. Most architectural forms are constructive forms glorified, though they seldom have attained to their full beauty before their constructive significance has become obsolete. The Greek triglyph was in origin the end of a beam, but it probably had been a block of marble for some time before it became a really nice-looking triglyph.

I said just now that I believed the proper business of architecture to be that of intensifying the appearance of what is desirable in building, and generally also of adorning that which is built. These are somewhat vague phrases and must be developed and qualified before we can arrive at any definition of architecture even approximately exact. To explain what I mean here by intensification I am going to take an analogy from the stage. However realistic the intention of the dramatist, it will not do for an actress impersonating an angry woman to work herself up into a fury about something and then speak her lines, behaving just as she feels. You will not improve an actor's playing of a deceived husband by telling him just before he goes on that his wife has bolted with the manager. The real emotion in either case will probably fail altogether to get across ; it will convey no idea to the minds of the audience. Certain things in the behaviour of angry or jealous people are universally significant and recognisable : other things variable, accidental and mystifying. In real life these traits are so intermingled that it might be quite possible to suppose that a man mad with jealousy was merely suffering from indigestion. The business of the actor is to eliminate all that is insignificant and to intensify, more or less, that which is significant—to eschew the accidental, and to lay stress upon the universal in the common symptoms of the emotion which he feigns.

The elimination of some appearances and intensification of others which can lift mere building into the estate of architecture is a process very much like that which the actor must practise. Just as the natural symptoms of various emotions, if they be unempha-

sized by art, may often fail to convey their meaning to the onlooker, so without the aid of architecture a strong building will often give but little idea of strength, a big one but little idea of bigness, a gorgeous one but little idea of magnificence. I can think of warehouses in which you could safely store railway engines on the upper floors, and which nevertheless look as if they were built of cardboard. A very little architecture might have quadrupled the apparent size of the Pyramids. The Grand Hotel at Charing Cross is covered with ornament (apparently put on by somebody with his eyes shut), and in spite of all its richness looks incurably poor. Contrast with such buildings the Kodak warehouse in Kingsway, where every ounce of power in the building is emphasized architecturally ; at the Royal Hospital at Chelsea, where every inch of plain brickwork contributes toward a noble effect of largeness ; and at the façade of the Ritz Hotel in Piccadilly, where an effect of unostentatious luxury is produced with extremely little enrichment.

I think that the expressiveness of these buildings, and of all good architecture, is due to the embodiment of forms which symbolize to all of us, whether we are conscious of it or not, ideas which belong not only to art but to life. This may seem a hard saying, but it is no more than an incomplete statement of a well-known psychological truth. I would sooner quote Sir Joshua Reynolds than I would Dr. Sigismond Freud, so let me repeat to you a sentence out of one of the great painter's discourses. "Architecture . . . possesses many principles in common with poetry and painting. Among those which may be reckoned as the first is that of affecting the imagination by means of association of ideas." Let me join to this the words of Sir Christopher Wren. "Customary beauty is begotten by the use" (that is, the accustomedness) "of our senses to those objects which are usually pleasing to us for other causes."

If you look at the context of this quotation from Wren's first tract, you will find that he was blind to the significance of the truth which he had worded so well. Or, if not blind, bored with it, which is perhaps more probable. The rest of the tract is chiefly concerned with that "geometrical or natural beauty" which so greatly exercised the speculations of the pedants of the Renaissance. In fact, "customary beauty" is only mentioned to be slighted. I think, none the less, that Wren's definition of "customary beauty" gets about as far as any human speculation as to the nature of beauty has got yet. Sir Joshua says in the quotation I have given that one of the first principles of poetry, painting and architecture "is that of affecting the imagination by means of association of ideas." Wren sees, beyond this, that the ideas evoked by association may be ideas remote from art—ideas "pleasing to us for other causes."

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The theory thus outlined will account, as will no other, for those general preferences for one form over another which rule the course and the development of art. Keats's estimate of "all we need to know" of beauty is rather a low one. His dogma that beauty is truth cannot have helped him much in any doubts he may have had as to the appropriate metre for some particular poem. Probably he chose his metres by what we are pleased to call "feeling"; he "felt" that such and such a rhythm would best suit the matter in his mind. In the same way a painter "feels" the appropriateness to his subject of some particular pattern of line and colour, and the architect "feels" that certain masses and shapes are called for by the nature of the building which he is designing.

What is this "feeling"? It can hardly be inborn instinct, though it may be founded on something of the kind. The Victorians believed it to be "inspiration" from heaven, thereby throwing upon heaven a formidable responsibility for their productions. I do not fancy that it is either instinct or inspiration which makes the great architect choose one and reject the other of two alternatives which are equal in point of usefulness and practicability. It is rather the faculty which Sir Joshua Reynolds calls "taste" and which we must rather call, owing to the degradation which that word has suffered, "subconscious perception of suitability."

When you say that you "like" Adam decoration but do not care much about Saracenic, what do you mean by "like"? Surely that it gives you pleasure. Why does it give you pleasure? I believe that it gives you pleasure because it reminds you of things "pleasing to you for other causes." Very likely you are conscious that it does so in superficial ways, but few of us realise the course of those hidden channels in our minds down which the currents of association and memory flow. "I have always liked Jacobean houses," a man will say; "they remind me of my old home." The association is recognised and explained. "I never cared about Corinthian columns," says another man; "I don't know why." Very likely because there are two Corinthian columns, which perhaps he never remembers noticing, at the front door of his dentist.

Such associations as these two are personal, and therefore have no artistic function save in so far as they will influence what is called "the expression of individuality." But many associations there are which are racial, and many which are universal. The racial associations account for a great deal of the difference between the Taj Mahal and the Banqueting House at Whitehall (which, it may amuse you to remember, are about contemporary one with the other), but racial associations do not touch the core of Art. The universal associations, which are probably more inaccessible buried in his subconsciousness than any others, form the mainspring of man's aesthetic impulse, and the

whole human conception of Beauty is probably nothing more than the idea of that which, by means of these universal associations, can afford us pleasure. Conversely, the human conception of Ugliness is probably the idea of that which, by these associations, can give us pain.

Fortunately, it is not necessary either for the artist or for those whom he works to please that he or they should analyse closely the nature of his appeal or of their response. This analysis is the business of the critic and of the philosopher. Again, to quote Sir Joshua Reynolds, "We have no reason to suspect there is a greater difference between our minds than between our forms; of which, though there are no two alike, yet there is a general similitude that goes through the whole race of mankind . . . and those who have cultivated their taste can distinguish . . . what agrees with or deviates from the general idea of nature, in one case, as well as in the other. . . . It seems then to follow, of course, that as the imagination is incapable of producing anything originally of itself, and can only vary and combine those ideas with which it is furnished by means of the senses, there will be necessarily an agreement in the imaginations, as in the senses of men." If these words be true, then, art-lovers can reasonably hope that the artist—being a man of like passions with themselves—will, by pleasing himself, do that which pleases them. But the artist in pleasing himself must be sincere, and the art-lovers must be sincere in seeking to be pleased. This is where the art-lovers often do not keep their part of the bargain. They suppress their natural preferences and suggest themselves into an unnatural set of likes and dislikes which they believe to be marks of mental superiority; or else they abandon themselves in an orgy of uncontrolled sentiment.

I spoke earlier of there being a beauty proper to art, just as there is a beauty proper to nature. It is the duty of a reasoning being to look for each of these in its appropriate place. Many people admire an old house not for its form and proportion, but for the softness of its mouldering outlines, for the colour of the lichens on its roof, for the accidental irregularity of its composition. I do not say that these are not beauties, or that we should not be grateful for them. But they are beauties proper to nature, and in art are supererogatory. Mouldering outlines and lichens are seen best of all in soft stone cliffs; accidental irregularity cannot be as picturesque in any building as it can be in the rocks of a waterfall. These beauties may be a great alleviation of crude architecture, they may be an adornment of rustic architecture, they may even be no disfigurement to ancient examples of monumental architecture; but they are not the proper beauties of the art and our pleasure in them is, in the strict sense of the word, inartistic.

I think that I have now gone as far as the limits of this lecture will allow me in my attempt to analyse the

LONDON SOCIETY EXHIBITION

"intensification" and "adornment" which I believe to be the natural processes of architectural creation. I hope that I have gone far enough to secure your agreement with the theory that these are the processes which distinguish architecture from the art which most nearly resembles it—civil engineering. Civil engineering I take to be building which complies with the first two of Wotton's requirements—Commoditie and Firmenes, but which is not concerned with Delight—Queen Anne's Mansions, in fact.

Now, civil engineering is obviously a necessity and not a luxury, and being such may be said to be an inevitability if we are not to relapse into barbarism. If we attempt now to decide which of these things architecture is, to answer the questions which I propounded at the outset of this lecture, what conclusion shall we reach?

I think that we may be quite sure that architecture is not a necessity, and that any attempt to represent it as such will only bring discredit upon those who make it. It is certain that the bare needs of life could be satisfied by civil engineering alone.

I think, on the other hand, that it is equally certain that architecture is an inevitability—that the impulse to make it and the impulse to demand it will out. Painters will produce pictures and architects will produce buildings just as determinedly as cats will have kittens, and no artistic Malthusianism will stop them.

As to whether architecture is or is not a luxury, I will again borrow some words from Sir Joshua. "When society is divided into different ranks, and some are appointed to labour for the support of others, those whom their superiority sets free from labour, begin to look for intellectual entertainments. Thus, whilst the shepherds were attending their flocks, their masters made the first astronomical observations; so music is said to have had its origin from a man at leisure listening to the strokes of a hammer." I quote these words because I conceive them to be historically true, and that astronomy, music, architecture, and other luxuries (you will observe that I consider our question already answered) are the children of leisure. Now what a man spends his leisure time in doing is what he enjoys doing, in nine cases out of ten. You will remember that I defined luxury as a thing which is desirable but not indispensable. We have seen that architecture is not indispensable, although the fact that architects will be architects makes it certain that we shall not be called upon to dispense with it. Still, if every architect in the world were to be shot, the human race would go on existing by kind permission of the civil engineers.

Architecture, however, is a thing which man desires, and presumably will continue to desire throughout the ages, and therefore I contend that this inevitable art may fairly be regarded as a luxury and not as an expensive nuisance.

The London Society

EXHIBITION OF MODELS AND DRAWINGS FOR A NEW BRIDGE AT CHARING CROSS.

The London Society has arranged, at the Old County Hall, Spring Gardens, S.W., an exhibition of models and drawings illustrating the possibilities of a new road bridge in place of the existing railway bridge and station at Charing Cross. The exhibition is of the greatest interest, and will remain open, at any rate, until Thursday, 29 March, but an extension of time has been asked for, and steps are being taken to try and arrange for the exhibits to be shown elsewhere. Some of the suggestions have been before the public for a good many years, but others are being shown for the first time. Sir Hamo Thornycroft, R.A., exhibits a sketch model showing a road bridge at the level and slightly to the east of the present railway bridge, while Mr. Ernest Herbert shows another model to a larger scale of a bridge nearly on the line of the present bridge and continuing at the high level right up to Waterloo and a new terminus for the S.E. Section of the Southern Railways. Other solutions that include a high-level bridge are shown by Sir Reginald Blomfield, R.A., and Professor Adshead. Sir Reginald suggests a new terminal station on the river front, but Professor Adshead keeps his close to Waterloo. Mr. Lionel Barrett starts his bridge approach from an open place to the N.E. of St. Martin's-in-the-Fields, and he also shows his new terminus adjoining Waterloo. Mr. John Murray's scheme deals more particularly with the provision of an imperial way from Piccadilly passing to the north of Leicester Square and St. Martin's-in-the-Fields and terminating in a great new place in the Strand from which start the approaches to a new road bridge at the high level. Mr. W. L. Lucas is another exponent of the high level, and his approach road starts from a place off the Strand in lieu of the present station yard at Charing Cross. On reaching the south side the bridge debouches into an elliptical place with a new terminal station on the river front. An anonymous scheme shows not only a new road bridge at Charing Cross, but one near the Temple also, connecting with the eastern horn of Aldwych, while Mr. E. Frazer Tomlins' conception includes a Temple of Peace upon the northern bank approached through a memorial to the fallen through whom peace came. Mr. Edwin T. Hall shows a scheme which is something of a combination of the high and low level solutions of the problem. His bridge is approached directly from the embankment roadways on both banks of the river, while on the northern shore practically the whole station site is allocated to buildings, the approaches to the bridge itself being formed by Northumberland Avenue and Villiers Street (widened and renamed Villiers Avenue).

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The low-level solutions are represented by Mr. W. D. Caroe and Messrs. D. Barclay Niven and T. Raffles Davison. Both these schemes show a bridge on the line of and approached from Northumberland Avenue and from the Embankment roadways on either side of the river. Mr. Paul Waterhouse shows a bridge approached in a similar manner, but differs from nearly all the others in the position of the new terminus, which he suggests should be to the east of the Blackfriars Road. Two perspective views prepared in the Engineer's Office of the London County Council are of interest, as they show very clearly the necessary ramping of the embankment roadways to approach a low-level scheme, while the high-level view indicates a roadway that rises and crosses the Strand by a viaduct to avoid interfering with the traffic scheme. Other drawings on exhibition include a suggestion for a south-side embankment roadway at an unusually high level, to allow of access by water to docks and quays behind, also a series of drawings of London improvements, lent by the *Builder*, made by Mr. Adrian Berrington, and a suggestion made by Mr. G. A. T. Middleton some years since for a high-level roadway actually constructed upon the existing railway bridges at Charing Cross, Blackfriars and Cannon Street. Mr. Middleton places his new S.E. Section terminus in a somewhat similar position to that adopted by Mr. Waterhouse. The exhibition as a whole is extremely instructive and should serve to arouse considerable interest in the solution of the problem which will certainly have to be tackled by the authorities at an early date.

LIVERPOOL UNIVERSITY DEGREE IN ARCHITECTURE.

The Court of the University of Liverpool, at a recent meeting, confirmed the resolutions of the Senate and Council, and thereby established the degree of Master of Architecture (M.Arch.) in the University. This degree may be given by the Senate to Bachelors of Architecture of not less than ten years' standing who have erected a building of distinguished merit in their own names. This is the first degree of its kind in any university, English or foreign, and should in the course of time form a distinction of considerable interest to the profession. The establishment of this new degree does not preclude Bachelors of Architecture of the University of Liverpool from proceeding to the ordinary M.A. on the production of a thesis embodying historical or scientific research.

ARCHITECTURE CLUB EXHIBITION.

By permission of the Duke of Westminster this Exhibition will remain open daily with the exception of Good Friday until April 7th.

THE ARCHITECTURAL LEAGUE OF NEW YORK AND SIR CHRISTOPHER WREN.

The President of the Architectural League of New York (Mr. Howard Greenley) delivered an address at a bicentenary ceremony held in commemoration of the death of Sir Christopher Wren on 10 February.

Mr. Greenley said: "The thirty-eighth annual exhibition of the Architectural League is strengthened and embellished by a comprehensive exhibit of the work of notable contemporaneous English architects, officially shown for the first time in this country through the courtesy and interest of Mr. Paul Waterhouse, the President of the Royal Institute of British Architects, seconded by the untiring efforts of our esteemed member Mr. Alfred C. Bossom.

"This exhibition takes on further significance by the fact that simultaneously in England and here in America we are offering to Sir Christopher Wren, perhaps the most notable of all English architects, the honours of bicentenary remembrance. His lofty expression of the value and importance of architecture may be summed up in his own words, 'Architecture has its political use, public buildings being the ornament of a country. It establishes a nation, draws people and commerce, makes the people love their native country which passion is the original in all great actions of a commonwealth.'

"With his history you are all well acquainted. Born on 20 October 1632, his early education was acquired at Westminster School and afterwards at Oxford. Until he was thirty years old he displayed no distinct tendency toward the Art of Architecture, confining himself to matters of science, to which he made valuable contribution. After the Great Fire of London in 1666 he developed a comprehensive plan for the rebuilding of the City, which in point of design can be said to be some 200 years in advance of his time. His masterpiece is unquestionably the Metropolitan Cathedral of St. Paul in London, originally begun upon the lines of Inigo Jones, of which great master he was the pupil. To show the prodigious quality of his work in his capacity of Surveyor-General of the King's Works, a position he held for forty-nine years, reference should be made to the churches of London, of which he reconstructed over fifty on their mediæval sites in the Renaissance manner, with special attention to St. Mary-le-Bow in Cheapside, St. Bride's in Fleet Street and St. Martin's on Ludgate Hill, whose towers and steeples are of surpassing beauty. Of equal importance are the new wing at Hampton Court Palace, Greenwich Hospital, Kensington Palace, Marlborough House, and the Library at Trinity College, Cambridge.

"Perhaps one reason for his success can be attributed to the extremely able body of fellow-draughtsmen he gathered around him, a subject of unusual significance to the members of the League in the principle of its own composition. Such names as Strong, his master mason,

WREN CELEBRATIONS

Jennings, his master carpenter, Cibber and Grinling Gibbons, his sculptors and carvers, and Jean Tijou, his iron worker, and the craftsmen that worked under him.

"The last five years of his life until his death in February 1723 are somewhat clouded by the neglect he suffered at the hands of his official patrons. Nevertheless he has left us a memory as unperishable as the monuments he conceived and executed.

"The architecture of Christopher Wren in England represents the soul of a man of whom England should ever be proud. An architect, sprung from and nourished by herself and worthy to be placed in the first rank of men of genius of all time.

"And so, with entire consciousness of the honour of representing you, the Architectural League of New York, in this memorial ceremony which we are conducting here to-day, and which will be also performed at the ceremonial in the Cathedral of Saint Paul in London by his Excellency the American Ambassador, I place this tribute from the American architects of to-day at the feet of the great architect of yesterday whose name and whose work are an inspiration for all ages."

A SPANISH APPRECIATION OF WREN.

The following is a translation of an article which appeared in the Madrid newspaper *El Sol* of 2 March :—

In those continual celebrations of centenaries it would not be well to forget that quite recently has been celebrated in London the bi-centenary of the death of Sir Christopher Wren. Every Spaniard who has visited London must have noticed the immense dome towering over the buildings of the City, and the combination of light and dark offered by the walls of St. Paul's Cathedral, here blackened by the smoke of the town and there washed and whitened by the rain. Wren was the architect of St. Paul's, which is one of the three great cathedrals of the world, the other two being St. Peter's at Rome and the Cathedral of Seville.

Sir Christopher Wren was a man of his time, that is to say, the time of the later English renaissance. He was one of the best Latin scholars in Europe, a great astronomer, a great mathematician, and one of the founders of the Royal Society, the association to which the progress of physical science is most indebted. He became the best architect of his time. [The writer here recapitulates some of the outstanding events in Wren's career.]

A child of the renaissance, Christopher Wren lacked sympathy for Gothic art, which appeared to him too popular and primitive. His ideals were the higher thought, perfect workmanship and austere dignity. These were also the ideals of his time, which did not bear any marks of lyrical effusion, but was conspicuous for having provided the basis for the future application of science to industry. What is certain is that the new cathedral of St. Paul, the one which Wren built, has nowadays more glorious memories than the older one, because it is the religious centre of the British Empire.

That Wren was greatly in advance of his time may be shown with only one remark. When London was rebuilt

after the Great Fire, Wren wanted to give the principal streets a width of 90 feet, 60 feet to the next important streets, and 36 feet to the smaller ones. Nearly 100 years afterwards, when there was a competition of architects for the betterment of the streets of Paris, the maximum width of 36 feet was not surpassed. Unfortunately, the advice of Wren was not followed, and this is the reason why there are at present so many and little dark streets in the City of London.

One of the reasons for the celebration in London of the bi-centenary of the death of Wren with such solemnity is the necessity for considerably repairing St. Paul's Cathedral. The glorious building stands not very far from the river Thames, and its enormous weight and the softness of the ground combine to endanger the solidity of the building, if it be not repaired in time. An appeal is being now made to the public spirit in order to obtain the necessary resources to secure for a thousand years the principal of Wren's works. He was a happy man, not only because he attained his 90th year in life, but because he began to build the cathedral in 1675 and saw it finished in 1710, and yet he lived still thirteen years to enjoy himself in the contemplation of his finished work.

BICENTENARY CELEBRATION AT CARDIFF.

In connection with the Wren celebrations at Cardiff, Mr. W. J. Purchon, M.A. [A.] (Head of the Department of Architecture and Civic Design in the Technical College), delivered a Public Lecture at Cardiff on 23 February dealing with the life and work of Sir Christopher Wren. Mr. Purchon also in the following week lectured before the Liverpool Society of Architects, again choosing Wren for his subject.

ROYAL VICTORIAN INSTITUTE OF ARCHITECTS AND THE BICENTENARY.

The Secretary of the Royal Institute of British Architects has received the following cablegram from the Royal Victorian Institute of Architects, dated 5 March :—

"MELBOURNE.

"VICTORIAN INSTITUTE ARCHITECTS TENDER HEARTY SUPPORT WREN COMMEMORATION."

THE WREN MEMORIAL VOLUME.

This book is now rapidly passing through the press, and the publishers hope to be able to send out the subscription copies shortly after Easter.

Mr. Charles E. Keyser, who has been recently elected an Honorary Associate of the Institute, establishes in himself an interesting link with the early history of the Institute. His grandfather, Edward Blore, was one of the petitioners for the Royal Charter granted by William IV in 1837. Mr. Keyser, in his youth, had the advantage of visiting with his grandfather many of the English cathedrals and churches, and has in his possession over fifty volumes of Edward Blore's architectural sketches

Correspondence

THEORY OF ARCHITECTURE.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I notice that in your issue of the 10th inst. you publish a letter from Mr. Blagrove commenting on my essay on the theory of architecture which appeared in the JOURNAL for 24 February. As Mr. Blagrove observes that in his opinion my essay contains points which "call for adverse notice," and as he proceeds to make certain criticisms, I trust you will permit me briefly to reply.

The clearest way of doing so will, I think, be to repeat Mr. Blagrove's statements in italics and to append to each the answer I would make.

"Having premised (IV) that all art consists of intuitions which have to be externalised in order that they may be appreciated by persons other than the artist, Mr. Budden proceeds to state (VII) that the sole function of art is to give pleasure. Here, it seems to me, he ignores the educative purpose of art, its highest function being to elevate the souls of those who are brought under its influence."

In asserting that the purpose of art was to give pleasure, I did not mean to deny or ignore its educative potentialities. Didactic or utilitarian merits are frequently possessed by works of art; and in the satisfaction we derive from the greatest works there is a moral quality. But art, I claimed, has, as its first object, neither the teaching of any lesson, however elevating, nor the achievement of any practical aim. It is primarily created and primarily valued for the pleasure it gives. That was and is my position—and it will, I hope, be Mr. Blagrove's, too, after he has recalled to his mind what have been the results in painting, literature and drama, when "uplift" and propaganda have been more important motives than a direct and genuine artistic urge.

"Coming to the question how beauty can result from a work of art, our author lays it down (VIII) that this effect is achieved 'by establishing a complete harmony between the unity of the mental image and the unity of the externalised symbol.' The artist has an intuition, and by the exercise of his art he externalises it, thus making it accessible to other people; and when the externalisation or outward manifestation corresponds accurately to the idea in the artist's mind beauty is the result. 'Upon no other terms is beauty in art to be revealed,' writes Mr. Budden."

"The presupposition underlying this assumption is that all intuitions are beautiful. But is this invariably the case? I fancy there are many persons who would not concede beauty, e.g., to all the music of Wagner or all the poetry of Browning."

Mr. Blagrove has misunderstood me. The presupposition underlying my argument was not that all intuitions are beautiful. On the contrary, I stated myself that "Intuitions of ugliness are a universal experience" (V, p. 237), and that themes of a repulsive nature are not

uncommonly found to be the subjects of art (VIII, p. 240). I endeavoured to demonstrate at some length that the beauty revealed in a work of art is not the reflection of a beauty already inherent in the intuition, but that it arises from "a correspondence in unity between the thing apprehended and the thing executed" (VIII, p. 240). That fact is stressed in the first of the above extracts from my essay which Mr. Blagrove has himself quoted. There is no question of all intuitions being beautiful.

"In discussing the transmission of architectonic ideas (XI) Mr. Budden touches upon the use of style. He writes: 'A more or less general agreement seems to have been reached that in the case of secular programmes a development of the Renaissance or neo-Classical manners is most fitting; whilst for ecclesiastical subjects the Mediæval or Byzantine conventions are appropriate.'

"I suggest that whatever kind of eclecticism we may succeed in evolving, it must possess the element of unity—in short, we must have one style for all purposes; and I regret that this point was not emphasised . . ."

It appeared to me to be desirable to keep my thesis within some reasonable limitations both as to substance and length. I therefore contented myself with a bare statement of fact concerning current opinion on the question of style. Any other course seemed to involve a prolonged excursion into debatable questions, the adequate discussion of which would destroy the balance of the essay.

I would, however, point out that a case can be made for the unresolved eclecticism that is characteristic of our period. It is possible that architects are to-day working in different manners—Mediæval, Byzantine, Renaissance, and so on—because our civilisation is itself not a perfectly fused thing. The process of general cultural assimilation may not yet be complete, and, if that is so, it would be futile to try to force the pace in architecture alone and to impose universally an artificial hybrid style that bore no true relationship to the condition of the time. I would not here commit myself to the hypothesis that a single convention is inappropriate or impossible to-day, but I would suggest that the matter is one that cannot be determined with arbitrary brevity, and for that reason I did not attempt so to prejudge it.

In conclusion, I would express my thanks to Mr. Blagrove for the favourable references to my essay which he is good enough to make.—Yours faithfully,

LIONEL B. BUDDEN [A.J.]

WHITGIFT HOSPITAL PRESERVATION COMMITTEE.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—At a well-attended meeting of the above Committee it was resolved by an overwhelming majority:—

"That, bearing in mind the fact that a considerable number of traders and others who constantly use the

ARCHITECTS IN INDIA

main street, although in many cases they may be indifferent to the claims of the Hospital as an ancient building, view with alarm the proposed creation of a wide open space in the centre of the town, which will, in their opinion, constitute a public danger and practically cut the main street into two portions and seriously interfere with the flow of pedestrian traffic :

" This Committee urges upon those who will oppose the Council's Bill in Parliament the necessity of emphasising the serious practical disadvantages of the Council's scheme from a Town Planning point of view and the superiority of the alternative plan."

The Committee fully recognise the necessity of widening the main street at an early date, and would draw attention to the fact that the alternative plan alluded to has received the approval of all the societies desirous of maintaining the Hospital, including such high authorities as the Royal Institute of British Architects and the Town Planning Institute ; and, although an attempt is now being made to repudiate it, by the Croydon Town Council.

It is understood that the Bill will probably be debated in the House of Lords in the middle of April.—Yours faithfully,

JOHN V. PELTON,
Hon. Secretary.

THE PRESERVATION FROM DECAY OF STONE ON BUILDINGS.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—In his Academy Lecture (reported p. 212 of the JOURNAL) Professor Laurie refers to the interesting results he is obtaining from his experiments with silicon ether as a stone preservative. Those concerned with the preservation of stone may be interested to learn that the use of silicic ether for this purpose was suggested by Dr. Hofmann, speaking at the Institute, some sixty years ago. Dr. Hofmann is reported in the R.I.B.A. *Transactions* 1860-61, page 179. His suggestion does not appear to have been followed up, and the possibilities of the material would seem to have been neglected till Dr. Laurie's recent experiments. I understand that the latter was not aware of Dr. Hofmann's proposal for the use of silicic ether for this purpose, but arrived at it independently after exhaustive and eliminating tests with other silicon compounds.—Yours faithfully,

J. H. CHANDLER [A].

MEMBERSHIP OF ALLIED SOCIETIES.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I am glad to learn from Mr. Perks's letter in current issue of the JOURNAL, that the membership of my Society consists of a greater proportion of R.I.B.A. members than in many others.

I am afraid, however, Mr. Perks consulted an old list in giving the membership as 60, of which number 38 were also members of the R.I.B.A.

Omitting 26 Students, the membership of my Society is 70, comprising the following members of the Institute—23 Fellows, 22 Associates, and 14 Licentiates—a total of 59, leaving a balance of 11 only who are not R.I.B.A. members.—Yours faithfully,

W. J. STENNER [A],
Hon. Secretary, Bristol Society of Architects.

Architecture and Architects in India

In connection with Mr. H. V. Lanchester's paper, we print the following extracts from a petition, dated 2 November 1921, from the Bombay Architectural Association to various authorities in Bombay :

" The members of the Bombay Architectural Association have the honour to approach you in the hope that you will be willing to lend the weight of your authority and influence in a matter which is of very vital concern to the advancement of Indian architecture, a subject closely connected with the development and beautification of this city.

" At the present time almost all the modern buildings in Bombay are of a character which owes practically nothing to the indigenous architecture of the country.

" That an Eastern country rich in great building traditions of its own, and inhabited by peoples so different in character, customs and language, should ever have turned for artistic inspiration to the styles of architecture of Greece and Italy, of France, England and Spain, is a circumstance greatly to be deplored. That India should continue to do so is as illogical as, to our minds, it is undesirable.

" We are persuaded that the general public will welcome a revival of their own national architecture once they realise that a building may possess much of the charm of the best examples of the indigenous styles of the country, and yet be planned as scientifically and carried out as economically as in a style of foreign importation.

" In certain localities in Bombay, European styles have already been adopted both in estates devoted to commercial and public buildings and in residential districts in the suburbs ; while this fact may be regretted, we realise that the introduction of another style now would strike a discordant note.

" We do ask, however, for your very earnest consideration as to whether, for new areas still to be developed or for old ones to be rebuilt, conditions may be so framed as, if not to enforce, at least to favour a rational style of architecture the outcome of a thoughtful treatment of material, the logical consideration of climate and the æsthetic expression of plan and purpose and in which the ornament, where ornament is desired, shall be based upon Indian rather than non-Indian traditional forms."

As a result of the petition, the Bombay Improvement Trust decided that on certain estates it should be made a condition on leasing the plots that the buildings to be erected shall be Indian in style of architecture, and a competition was organised by it to get ideas as to the lines on which this might be done. Over eighty designs were submitted. Four designs were purchased by the Board in addition to the designs awarded prizes. All the prize-winners and authors of purchased designs were either past or present students of the Bombay School of Art.

The Lighting of Picture Galleries and Museums

After the Business Meeting on 5 March a discussion was held on Mr. Hurst Seager's Paper on "The Lighting of Picture Galleries and Museums," which was published in the JOURNAL 13 January, the President (Mr. Paul Waterhouse, M.A.) in the Chair.

Previous to the discussion Mr. Hurst Seager gave a demonstration illustrated by a large number of lantern slides prepared from his own photographs.

The experiments in the effect of the use of kaleidoscopic glass showed that, without any blinds, protection from the sun's rays might be gained by means of perfect diffusion ; he urged that instead of using coloured blinds to shut off the sun's rays, it would be much better to use opaque blinds to diminish the size of the area of glass. In this way a pure daylight of varying intensities was obtained. The principle of the Top-Side-Lighted method was shown by diagrams, which indicated that the fundamental principle to be followed was that the picture wall must be the best lighted part of the room and must receive its light from one source only, that the rooms could be of any form or size and of such architectural magnificence as might be desired ; but whatever the design it would be improved by adopting the top-side-lighting method. Then followed a series of examples by which the value of the top-side light might be immediately seen, and this included such varied illustrations as the small ante-room in Sir John Soane's Museum and the gallery in the Grand Palais at Paris, where by accidental arrangement a most efficient top-side light had been secured. The series of illustrations showed how present side-lighted rooms might be converted into top-side-lighted ones. In this series was included the application at the Louvre, which was illustrated in *L'Illustration* of 10 December and favourably spoken of in the principal Parisian journals. Mr. Seager pointed out that the present top-lighted rooms in which the skylights are in the slopes of the roof on each side of the room were adapted for converting into top-side-lighted ones by the use of opaque blinds, as stated in his paper. In the Wallace Collection the picture of "The Shepherd" taken when the room was a top-lighted gallery, as illustrated in his article, was very nearly freed from reflections when the gallery was converted by the use of the present translucent blinds into a top-side-lighted one. A photograph of the room when converted into a top-side-lighted one showed that the effect of the room was improved by directing the light to one side of it : even though the sun was not shining it gave the effect of brilliancy of light by the contrast gained. The lecturer stated that as there is perfect control over the light in this manner, good lighting becomes quite independent of the direction of the axis of the gallery. In a square room with the skylights or lantern lights all round, the source of light would be exposed, in turn, on one side only.

Mr. Seager concluded by expressing the hope that it would be considered that his papers and the experiments of the National Physical Laboratory and those made by His Majesty's Office of Works under Sir Frank Baines, the successful experiment at the Louvre and the tests made by Dr. Berlage, together with the demonstration, had

proved that the remedy for getting rid of the harmful reflections lay in the hands of the directors of public galleries and proprietors of private galleries.

The President complimented Mr. Seager upon his photographic display and commentary.

Mr. WM. WOODWARD [F.], in proposing a vote of thanks, said : May I, as a great lover of pictures, move a very hearty vote of thanks to Mr. Seager for the very interesting lecture he has given us to-night ? You will agree with me that the lighting of picture galleries is a very important matter, not only, and not principally, to architects, but to the general public. What can be more disappointing and vexatious than on going into a public picture gallery to find that the painting is not so much a picture as a reflection of yourself ? I have arrived at the conclusion that the top-side lighting is unquestionably the best for the display of the beauties of the pictures. Mr. Seager will agree with me that it is not only the top-side lighting, but it is also a matter of the angle at which the top-side light is pitched.

Let us consider two important public galleries in London—the Tate Gallery and the National Gallery. If you go into the Tate Gallery, you will find that it is admirably lighted, sometimes far too much lighted, but you will be brought to realise that the lighting is fatal so far as seeing the pictures in a proper manner is concerned on account of the reflections. In practically every picture in that gallery to-day you see a second picture, that of your own form. Go into the Sculpture Gallery ; it is beautifully lighted ; but pictures should not have been put in the same gallery because it is not suitable for them.

Now as to the National Gallery. With all our wealth, our science and our art, we have not a gallery there where we can properly see the pictures. Mr. Seager has told us how reflections can be modified, and I hope the Government, or Lord Leverhulme, or someone else, will devote some of their money to employing a master in the art of lighting picture galleries.

Mr. Seager has referred to the exhibition of the Salon sculpture in the Grand Palais at Paris. Some years before the war I was there, and I have never seen a more beautifully lighted gallery. It is only a Frenchman who knows properly how the curves should be treated. At Potsdam there is a Museum of Sculpture, and there are statues of past Emperors and Empresses of Germany. There is a recumbent figure of the Empress Augusta. There is light from a blue glass on it, and its effect on the face of the Empress is marvellous.

Mention has been made of so colouring the walls of picture galleries that they do not interfere with illustrations. But what about the colouring of the walls of the National Gallery ? When I go there I hardly know whether I am going into Sanderson's or Lyons's to choose coloured papers. You will see all coloured papers on the walls of the National Gallery. When they were first put up I thought they were experiments.

I feel much obliged for this excellent paper, and I hope Mr. Seager will be employed to put our picture galleries right.

DISCUSSION

Sir CHARLES HOLMES (Director of the National Gallery) : I think I shall be stating a mere commonplace if I express our gratitude to Mr. Seager for his interesting and I think I may say illuminating paper on this difficult subject. The National Gallery, in this connection, has, rightly, I think, been used as a whipping-post ; but I have to remind the audience that the problem there, in many cases, is one of extraordinary difficulty. In the first place, most of Mr. Seager's illustrations are those of modern pictures, in which the tones are comparatively light. In such cases the problems of reflections are very easily solved, because reflections are practically non-existent. But when you have old pictures, which are very dark indeed, and which have to be exhibited in London, with its climate so dangerous for the surfaces of pictures that they have to be glazed, the problem becomes a difficult one. When once you put glass over a very dark picture, you produce something very like a dark mirror, and no system of lighting, except that which Mr. Seager has called " top-side lighting," in an enclosed chamber with practically black walls all round, will eliminate reflection. You have got, in fact, a condition which is incompatible with what we may term the ordinary amenities of the picture gallery. If the nation possessed only 50, or 100, or 150 pictures, it would be possible to show each of them in a separate place as an isolated example of art ; but it is difficult to imagine any gallery covering the area which would be available in a place like London, where ground values are enormous, that would accommodate so large a collection as ours if it had to be strung out into long top-side-lighted corridors. I do not raise this point in any contentious spirit, but merely because it is one of those things which occur to the mind directly a subject of this kind is mentioned. Secondly, when you get your pictures into long corridors, or corridors divided up into bays, you lose what is, to me, one of the most valuable things in connection with pictures, that sense of historical continuity which we all derive from seeing pictures in a big gallery, grouped according to schools or historical periods. If you go into any of the rooms of our despised National Gallery, you will find, even there, to a certain extent, that an effort has been made to preserve the rudiments of historical congruity. If you look round the Florentine or the Venetian Rooms, you get an impression of the art of one period and of one country. But if you were to exhibit those pictures under perfect illuminating conditions they might become isolated museum specimens, and what you would gain in perfection you would lose, I think, in the impression of continuous civilisation, which is one of the greatest messages art has for us. I know that if we could combine both ideas that would be the perfect thing. The simple plan is sometimes suggested of putting a dark screen right down the middle of the gallery, which would get rid of three-fourths of the reflections. I have often thought of that. But most of us would feel, if we were sufficiently sensitive to value the best points of pictures, that there was a certain incongruity in spoiling the effect of the rooms in this way. I made sketches of screens years ago, and thought them over carefully, and suggested them in one or two quarters. Yet, in the long run, we thought it better to preserve the amenities of the Gallery, even at the risk of certain imperfections of vision.

The National Gallery is frequently criticised on account of reflections. I have to remind you that I did not build it. Almost every room is about 20 feet too high, and that is the chief cause of all these troubles of reflection. When you once get any system of lighting which is 40 feet above your head, all the rays fuse into top-lighting. Therefore, many of our galleries are, from that point of view of lighting, impossible, and without pulling down half the building you could not remedy the defect. When some of the galleries were being re-roofed, I tried to persuade the Government to build lower because of the lighting, but I have to remind Mr. Woodward and Mr. Seager that there are limits to the sums which even a Government can spend on architecture. Therefore my suggestion was refused. They could not afford to knock off some 20 feet of the building, and build the rooms lower so that we could get a decent light without so much diffused light. I am certain that anyone erecting a new gallery could build one very much better in many ways than the National Gallery for the exhibition of pictures ; but I think that several of the rooms in the Tate Gallery which have been severely criticised are really well lighted. Perhaps that is because we always imagine anything to be better than the things we see about us every day.

I do heartily second the vote of thanks to Mr. Seager for his paper.

Sir RICHARD PAGET, Bart. (Hon. Associate) : I should like to add one word of thanks to Mr. Seager for his paper, and for showing two slides for me to illustrate the remarks I wish to make. The method which Mr. Seager has so admirably described, top-side lighting, can be got without any architectural devices at all, namely, by hanging a tent, as it were, down the centre of the building. In the case of the room in which we are to-night, you can imagine a pole along the centre with a curtain hanging over it like a tent ; such an arrangement would have the effect of Mr. Seager's covering as you get in the Ryks Museum, and the effect of the central screen which the Director of the National Gallery has described, by means of a curtain hanging down the centre of the room. It seems to me that those very simple expedients might be tried, so that their effect could be judged. I have no doubt you could get almost perfect illumination of pictures by that very simple device, for although the illumination of the pictures would not be good if the skyline were high, yet by placing the spectators in as much darkness as you like, you could ensure for them an almost perfect view of the pictures, without any further alteration in the actual method of illumination. The second black slide, which I do not think had its purpose made quite clear to you, was an attempt to show that with ordinary side lighting you could get the same effects as from top lighting, namely, by having inclined reflectors, of the ordinary corrugated variety, which would shield the spectators from the light, and throw the light which came from the window against the outer walls. It really amplifies the methods which Mr. Seager has illustrated to-night.

The Rt. Hon. the EARL OF CRAWFORD AND BALCARRES (Hon. Fellow) : I cannot help thinking that a long dependent black curtain down the centre of the great Venetian Room of the National Gallery would destroy the magnificent dignity and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

unity of the room, and it would prevent the visitor from seeing from one side to the other. It would, in fact, halve the size of the room, would destroy whatever architectural merit it possesses, and would reduce one's power of vision of the pictures by 50 per cent. In the three speeches we have heard, except that of Sir Charles Holmes, there seems to have been an undue atmosphere of pessimism. I have read Mr. Seager's paper with the very greatest interest and instruction. I am no scientist, and I do not pretend to understand the theories as to re-entrant beams of light and the laws governing refraction and diffusion ; and, knowing my shortcomings in that respect, when I came to that part of his paper I skipped it, and when we had his diagrams showing the angles on the screen, I looked the other way. I only approach the subject from the point of view of one who uses the galleries in every town he visits, and I feel that Mr. Seager has impressed upon my mind the vital importance of lighting in a way that had never occurred to me before. In a picture gallery you do not want your principal light on the floor ; but is he not pessimistic in saying that it is only by means of photographs, taken with the aid of large black cloths to shut off reflections, that the beauty of the pictures in the National Gallery can be realised ? I think Mr. Seager is a little more influenced by the climate of London than by the reflections caused by the glass on the pictures of the National Gallery. I do not think light is the sole consideration in a picture gallery ; you have to think of the surroundings, the sequence, the dignity of the room, which should be in scale with the dignity of the pictures. I do not like a central gallery with a series of cavities or "peep-holes" opening off on either side of it. The spectator will not conform to theory or requirement by remaining in the comparative darkness in the centre passage ; he will walk into the cavity or the side room, and the old problem will reproduce itself, and his own portrait will appear in the face of the picture if it happens to be glazed. In the new building of the Hague Museum, the galleries seem to be small ones, they will, therefore, only be suited to the small Dutch cabinet pictures. You cannot put a great group of Rembrandt in such small rooms ; there would be no space for it. There are many Dutch cabinet pictures no bigger than those which are around this room to-night, and the spectator will range himself about twice the height of the picture from the picture ; and, however you may try to tempt him to keep out of the way of the picture, he will not do it ; he will go up to the picture, and have his image reflected in it. Moreover, in this country, one cannot avoid the dull, tiresome, departmental watching and control. If, in the National Gallery there were a series of small rooms, like the rooms of the great Rubens Gallery in the Louvre, the cost of administration would be doubled. Every policeman costs—what is it, £200 a year ?—and in London you must watch these things. Although we are the least mischievous race in the world, yet, owing to the area and population of our metropolis, we have the largest number of actual mischievous people of any capital. And that is why pictures have to be glazed. It is not that our city is the dirtiest—except Petrograd. There have been as many as twenty injuries in a single day to glass on pictures in the National Gallery. And glass is a great protection to a picture. If

there is a madman or evil-disposed person who wishes to smash a picture, he has first to break through strong glass, and in doing so he betrays himself. Without that protection, a man could do half a million pounds' worth of damage in an afternoon. Therefore we must take it as axiomatic that the glass is a double protection—against dirt and against damage ; and therefore it is essential.

How much light is wanted ? In Mr. Hurst Seager's paper there is a reproduction of a picture of the great room of the British School in the National Gallery, a most suitable room, the author says, for converting into a top-side-lighted gallery, with the Vandyke now obliterated as a grand ending to the central arched corridor ; it is much over-lighted. But it is a question of degree, and a question of sight, perhaps also a question of taste. I do not think it is over-lighted ; it is a satisfaction to me to go there. Everything I see in that room leaves the impression on my mind of being adequately lighted, and no more ; and for five or six months in the year, if the scale of lighting there were reduced, I should say the room had been ruined. I would rather have a room over-lighted during the summer months than under-lighted during the autumn and the winter. The result is, that we have got to cater for the average weather of Britain, and for the average smoke-content of the London atmosphere. In my opinion, no room in the National Gallery is over-lighted ; some are very seriously under-lighted.

Then about the glazing and the causation of these reflections. Here is the picture of the great Cima da Conegliano, "The Incredulity of St. Thomas," and here is the reproduced Shepherd Piping to the Shepherdess, from the Wallace Collection. I do not think we ought to assume that the spectator or the student of pictures is immobile, like the photographer. I go to the National Gallery constantly, and I never see the things which have been reproduced for us on the screen. I look at the picture as a human being ; the camera looks at it or portrays it like a machine. I do not see those shadows ; I do not see myself. I never go there to look for myself, and in consequence I never see myself. If by chance there is a particular reflection, then by moving a few inches sub-consciously I get rid of that reflection. I think that many of the views of pictures which have been shown this evening are misleading, except to those who are determined to see how much can be reflected in a piece of plate glass, and who are determined at all costs not to avoid that reflection.

I have learned a great deal this evening, and I am anxious to learn a good deal more. Mr. Seager, in his paper, promises that he has further information which he hopes to summarise, and ultimately to publish. I hope he will pursue the subject, which is interesting to everybody, not merely in this country, but to art-lovers all over the world. I hope he will be able to devise the ideal combination of fine, dignified galleries together with a thoroughly scientific and adequate manner of explaining their exhibits.

Mr. A. DUNBAR SMITH [F.] : I would like to join with the others in thanking Mr. Seager for his paper. He has followed out these researches with the greatest industry, and, I think, has arrived at very interesting results. The illustrations he has given us to-night are, in my view, of extraordinary interest.

DISCUSSION

Like most of the speakers, I confess to a little prejudice against the scheme he first put forward. To me, a succession of cabinet rooms or alcoves is not at all an inspiring way of exhibiting a national collection. I have felt that very much in the Kaiser Friedrich Museum, in the Louvre, in Stockholm, and elsewhere. It becomes a peep-show directly to the general public if they are to walk through a long succession of rooms ; they go into one room and look round, then go to the next and look round, and so on through the series. But on entering a big picture gallery, the matter is different ; first of all you enjoy the general effect, then glimpses of certain pictures from a distance, and you want to see more of them, and you go back and have a closer look. This is not, however, primarily a question for architects ; we must do whatever the directors and the governors of the museums want. But, speaking as the man in the street, that is how it strikes me.

The part of the lecture dealing with the improvement in lighting due to the use of opaque blinds is very interesting, and it might be tried. But that again is a question for the directors. I think Sir Charles Holmes's suggestion of a curtain down the centre of the room will not get rid of all reflection ; he would also have to provide black overalls for ladies wearing light dresses, and dark skull-caps for those having shiny pates, otherwise there will still be reflected images spoiling the effect of the pictures.

I hope Mr. Seager will continue these researches. We architects especially are very much indebted to him. We had become a little despondent on this subject of reflections in pictures, and disposed to look upon them as inevitable. He has thrown fresh light on the subject, and we shall start anew and see whether we cannot in some way—not necessarily quite in his way—do better in getting rid of reflections than we have succeeded in doing hitherto.

Mr. A. T. BOLTON [F.] : I feel grateful personally to Mr. Seager, because he has been repeatedly to the Sir John Soane Museum and has spent much time there in studying this question, and he has thus been able to realise, more than most people, what an extraordinary knowledge of internal lighting effects Sir John Soane must have had. We shall miss the point of this discussion if we do not realise the mischief which has been done in the immediate past by the attempt to enforce any one system. The trouble began with the Sheepshanks Gallery at South Kensington. Up till that time the system of lighting of galleries was developing along better lines than it has done since that gallery was built. The older system may be described as monitor lighting ; there were vertical lights and a flat ceiling, which acted as a reflector, and the lantern usually occupied the centre of the room, leaving some flat ceiling on either side. In the case of the Hogarth Room, however, which Sir John Soane built as a picture gallery in 1824, the upright glazing is practically continuous with the plane of the wall. The Hogarths are dark pictures, and they are now glazed, so that Mr. Seager could exhibit a photograph showing reflections, but, as Lord Crawford has pointed out, that was the fault of the camera. Considering the darkness of the pictures, and the fact that they are glazed, it is extraordinary how free in this case they are from reflections. You can, of course, select a point of view and take a photograph which shows reflections, but that does not mean that when you are in the room looking

at the pictures you will always see the reflections he has recorded. In his specially selected instance, the small ante-room, the picture which he has photographed is an Oriental scene, with a very light background, but even there the other day I noticed a reflection, showing that it all depends on a particular station point. I am glad it has fallen to Lord Crawford to bring us as architects back to the main point, that, after all, great pictures are to be housed in an architectural fashion, realising that a great gallery is a place of recreation and resort, and should have the character of a combination of architecture and pictures. Above all, we do not want to see pictures with any kind of trick lighting. I have visited the museum mentioned in Holland, and felt that the effect bordered on such trick lighting. Where you have such highly lighted bays with a dark centre passage, it must produce an effect of this kind. Moreover, the old pictures were never painted for positions and lighting of that character. Most people applaud the modern arrangement of the Octagon Room in the National Gallery, where the great altar pieces are now placed so that they appear more after the manner of the positions for which they were painted. They look magnificent ; it is the best arrangement we have had for a long time. The older part of the National Gallery has been injured by the abolition of the monitor lighting, which was the traditional system. And in the Edward Barry portion the removal of the inner glazed ceiling is a doubtful improvement ; the great gallery has certainly lost in general effect. The Fitzwilliam Museum I have not seen for many years, but I fancy Mr. Seager has been rather too unfavourable to it, because it is the work of Basevi, who was a pupil in Sir John Soane's office at the time when the Dulwich Gallery was built. It is a more elaborate version of the economical building at Dulwich, but he may have been influenced by the very lofty gallery at Munich by Klenze in the direction of departing too far from his old master's proportions.

The highly polished floors now common at all the picture galleries are another cause of reflections unfavourable to the pictures. In conclusion, we ought not to adopt any particular system of lighting, but by observation of the old galleries pick up the traditional way in which they were developed, and not tie ourselves down to some new system as the last word of science which may hereafter turn out to be as disastrous as the Sheepshanks is now seen to have been since its introduction.

Mr. ARTHUR KEEN [F.] : I would like to endorse what Mr. Bolton said about the extraordinary skill shown by Sir John Soane in this matter of lighting. There are two or three buildings which linger in my mind as being most pleasantly lighted. One is the Dulwich Picture Gallery. I have not seen it since it was altered and the sky-lights inserted, but it had vertical lights in a lantern arrangement in the middle of the room, and it was one of the most pleasantly lighted places I have been in. I cannot think it has been improved by having sky-lights inserted. Another instance of fine lighting is the great halls in the Bank of England, also by Sir John Soane. The rooms in the Bank are great square rooms with domical ceilings, and in practically all cases there is a lantern light, with vertical glazed sides, and a plaster ceiling at the top. The light is so well diffused that it is almost like being in

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the open air. And one knows very well the wonderful ingenuity with which the rooms in the Soane Museum are lighted. A similar, but not quite parallel, case is that of one of the churches in the City of London, All Hallows, in London Wall, built by Dance. It is not lighted by a lantern, but by a series of lunettes at the top of the wall; there are lunettes along the vault from end to end on both sides, and no lighting below. You are conscious of adequate light, while hardly conscious of where it comes from.

Another case of vertical lighting in the middle of a dome was a church which used to stand in the City of London but has now been destroyed; it was built by Jesse Gibson; the Church of St. Peter le Poer, in Broad Street. It was a circular building, with semicircular apse at one end, an umbrella-shaped dome, and a large lantern in the middle of the dome, with vertical sides, and glazed all round. That was a perfectly lighted interior, and I think a great deal more ought to be done in the lighting of picture galleries by the use of lantern lights, not top-lights, but lanterns with light coming in at the side, with vertical windows, as opposed to definite sky-lights.

I join in thanking Mr. Seager very much for one of the most interesting papers we have heard discussed here. He has studied the subject to some purpose, and all he has said has been very much to the point.

The PRESIDENT: I would say a word of additional thanks personally to Mr. Seager for this most interesting paper. I feel rather a proud man in one of my capacities to-night, that of a trustee of Sir John Soane's Museum. We seem to be the only people who have got off with commendation. But that is not due to any merit in us, but to Sir John himself, as Mr. Bolton pointed out. Most of us will have great sympathy with what Lord Crawford said to us about the possibility, in most galleries, of avoiding the inconvenience of reflections, either by steadfastly not noticing them, or by so dodging one's position that visibility becomes possible. Mr. Hurst Seager has been called a pessimist to-night, but in another sense he has shown himself an optimist, because he has shown us how the most obstinate cases can be dealt with by the most simple means.

Mr. HURST SEAGER, in reply: Thank you, Mr. President, and those who proposed and seconded the vote of thanks.

I confess to a feeling of despondency, because it seemed to me all my work in preparing these notes and bringing these illustrations before you has not fallen on good ground; the seed will not grow, I am afraid, on the soil which has been revealed to us this evening. I had hoped the paper would have been sufficiently convincing to have done away with the thought of having black cloths and other expedients which I had shown were quite unnecessary. None of those who have spoken appear to have realised the full significance of the simple expedient of putting in the opaque blinds. Sir Charles Holmes said they had not got the money. For this they would want a very trifling amount. In some cases the effect could be carried out by a coat of paint on the present blinds; even these—some of which are ill-fitting and let the sun in at the sides—would bring immense improvement if used to convert the top-lighted galleries into Top-Side-Lighted ones as suggested.

I had not thought it worth while to stress the point that the reflections in our galleries are overwhelming. It is common knowledge among the whole of those who visit them, and I was surprised to hear Lord Crawford say he did not see them. The *Architectural Review* said, when Room 25 at the National Gallery was opened, "We do not agree with our correspondents that it is absolutely impossible to see the pictures; but reflections do exist to a most annoying extent." I think that is the opinion held by all who visit picture galleries in every part of the world. I hope the directorates of the galleries will give this very simple remedy an immediate trial. What they have done at the Louvre by converting two of the side-lighted rooms into Top-Side-Lighted ones could be repeated here. At Hampton Court all the pictures could be beautifully seen by adopting the simple expedient made use of at the Louvre.

I hope you will do me the justice of re-reading my paper, for you will find in it complete answers to the criticisms offered to-night. You have been asked to learn by observation. What was the result of the Boston Commission's world-wide tour of observation? Mr. Brewer told us the result was absolute failure. It is only observation with a full knowledge of the scientific laws and their application that will lead us to the realisation of the ideal the writers of old placed before us.

Mr. P. J. Waldram, F.S.I., Licentiate, has sent the following contribution to the discussion:—

Viewed in the light of the advances which have been made in our knowledge of natural illumination during recent years, this Paper would appear to be one of the most valuable, as it is certainly one of the most arrestingly interesting, contributions on the subject which have been made for a considerable time.

But the author scarcely does himself justice in stressing the point that these questions must be determined by "scientific methods." Scientific methods can only help us to apply our knowledge—they will not do our thinking for us. A doctor can apply his medical knowledge and experience with greater accuracy and confidence by the aid of a clinical thermometer. The instrument *per se* will neither make his diagnosis nor deduce his conclusions.

As our knowledge of daylight, like our knowledge of so many other everyday matters, is surprisingly thin, and as much of what we believe we know about it proves not infrequently to be inaccurate, I would venture to suggest that there is probably more to be gained in this subject along the lines of intelligent and careful observation than by endeavouring to make our observations square with the laws of optics, many of which refer to point sources and to defined beams of artificial light, and have only a limited application to the somewhat elusive problems of daylight illumination.

It is the author's power of accurate and intelligent observation which makes his work so valuable. His efforts to show that certain optical laws agree with and prove his results are apt to raise unnecessary and undesirable doubts as to the accuracy of his views.

For example, in the 1912 Paper to which he refers, he deduces, quite correctly, from photographic results that illumination drops off far more rapidly than is usually

DISCUSSION

supposed as distance from a window increases, and he attributes this to the operation of the well-known law of inverse squares. But the law of inverse squares only applies to point sources of light, the drop being actually due to loss of visible sky. Except for the contribution made to total light by light diffusely reflected from walls and ceiling, and except for the fact that different parts of the sky have different illuminating values according to their angle of elevation, the light at any point is proportional to the sky area which can shed light upon that point. This visible sky does certainly happen to vary inversely with the square of the distance from the window; but the introduction of the law of inverse squares is apt to confuse the real issues and to discredit unnecessarily a piece of accurate and useful observation.

Again, on page 137 a diagram is shown which indicates the different lighting on a picture at different heights by transverse dimensions across beams of light bounded by lines joining the top and bottom of the picture to the top and bottom of the window. The beams happen to be parallel because the picture and the window are shown the same size. It would appear to have been preferable merely to have noted that the illumination does drop off in the lower positions. It does so chiefly because the light by which the picture is seen in a horizontal direction depends upon the light which it reflects horizontally, which decreases as the angle of incidence of the light becomes steeper in the lower positions.

It also drops off because in the lower positions the window can see less sky, which would more accurately be measured by joining the bottom of the picture to the top of the window and *vice versa*.

The author records on page 133 a difference of about 150 to 1 in favour of the lighting of galleries in Rome and London as compared with a side-lit room in a gallery at Brussels. But isolated measurements of the light in interiors are of no value as criteria unless they are related to measurements of the outside light taken simultaneously. Days which appear to be similarly and uniformly dull can vary by hundreds per cent. between dawn and dusk and between summer and winter.

I would venture to question whether reflections are the sole or even an important cause of museum headache, which can be acquired quite easily at the Building Exhibition, for example. It would appear to be due mainly to want of ventilation accentuated by eye strain. The latter is often caused by endeavouring to view the details of dark-coloured objects in the presence of some bright source of light, like visible sky, which need not necessarily be in the direct line of vision. So long as the eye is conscious of the presence of the bright source of light the iris tends to close, rendering clear definition difficult.

On page 127 the author gives as a fixed rule that the maximum length of a bay should be twice one dimension (presumably the height) of the picture exhibited, and Lord Crawford mentioned a similar distance as being that from which pictures were commonly viewed.

It would be interesting to know whether this has any relation to the perspective of the picture. The late Professor Silvanus Thompson, during the last conversation which I had with him, mentioned that he was then engaged upon a new inquiry, viz., the correct distances at which pictures should be viewed to obtain their

full beauty. This would seem to be a matter not without importance in gallery design, and its discussion by one who was at once a scientist, an artist of no mean repute, and a great lover of pictures would have been of outstanding interest.

Recently I had occasion to superimpose, on a perspective view, lines of celestial latitude and longitude. Viewed from ordinary distances they appeared to be ridiculously distorted, but when the eye was placed at a distance from the paper equal to the distance between the viewpoint and the picture plane of the perspective they immediately assumed a perfectly natural appearance.

It would be interesting to know whether any attempt has been made to light picture galleries artificially (especially those containing Italian pictures) with any of the new forms of daylight lamps.

Some of these have now reached such a standard of excellence that it is possible to view at leisure effects which in this country at least can only be obtained at rare intervals, when the atmospheric conditions are unusually perfect.

It is to be hoped that the author will not be discouraged from continuing his valuable work by the fact that his Paper elicited some pointed criticisms. Every reform has probably been praised with faint damns at some period of its life.

The following letter has been received from Mr. Edward M. Gibbs [F.] :—

15 St. James's Row, Sheffield,
3 March 1923.

DEAR SIR,—I regret that I cannot attend the meeting on Monday to join in the discussion.

As the designer of the Mappin Art Gallery, which was erected in collaboration with my late partner, Thomas James Flockton, deceased, may I ask you to submit my views on the subject of lighting to the meeting?

In the gallery as originally designed there were to be no ceiling lights, but the light was to have been somewhat similar to what Mr. Seager describes as top-side-lighted, and there were also to be a series of bays and recesses on each side of a shaded central hall, somewhat similar to Ryks Museum, which was then in course of erection, but unknown to me. The gallery as erected has level skylights at the sides, the bays or recesses have been omitted, but the shaded central hall retained, which has since been mutilated by putting in central and end lights. The pictures in the gallery are the same and hung much in the same positions as when the gallery was opened to the public, at which time they were *unglazed* and it was then agreed that *there were no reflections to be seen on the pictures*.

The pictures are now glazed, with few exceptions. I find all the glazed pictures have now serious reflections on them, and that one large picture which is unglazed remains free from reflection of any kind. From careful examination of the reflections I find that they are mostly *from the glazed pictures on the opposite side of the gallery*, and also from the ceiling and end lights which mutilate the Central Hall. I find also that there are no reflections from the level ceiling lights close to the walls, which is contra to Mr. Seager's suggestions.

My conclusion is that to avoid reflections in this gallery the glazing must be removed, and that it is desirable that the shaded mutilated central hall be restored.

Obituary

LORD PLYMOUTH [Honorary Fellow].
By SIR REGINALD BLOMFIELD, R.A.

The art of the country has suffered a serious loss through the death of Lord Plymouth, one of the most sincere friends and enlightened supporters of the arts that this country has possessed for many years. He belonged to a class of people now, unhappily, rare, men of education and great social position, familiar from their youth with beautiful things, and possessing an inherited instinct of refinement, who are, in fact, one of our few remaining barriers against the onslaughts of the Philistine.

Lord Plymouth was born in 1857, succeeding to the title of Lord Windsor when only twelve, and becoming Earl of Plymouth in 1905. He was educated at Eton and St. John's College, Cambridge, and from early manhood took that keen interest in the arts which throughout his life remained the sphere of intellectual activity to which he was most attached, and in which he was most at home. I doubt if he cared greatly for politics ; their atmosphere of strife and intrigue was distasteful to a man of his quiet, gentle temperament. He was not a ready speaker and his manner was rather hesitating and uncertain, but of his wide knowledge and real sympathy with the arts there could be no question, and his sound judgment was recognised by everyone concerned with large questions affecting the arts. For a short time, 1902-5, he was an admirable First Commissioner of Works. When there was a great risk of the Crystal Palace and its grounds being sold to the speculative builder, Lord Plymouth, who had already subscribed £5,000 to the fund, came forward and made himself personally responsible for the very large sum of £260,000 to ensure its preservation.

If the cause was a good one Lord Plymouth was always ready to help in every way he could, and his advice, if perhaps sometimes a little over-cautious, was based on such wide knowledge and experience, and was so completely disinterested, that it compelled the closest consideration. I often met him on these committees, and he was always the same. Modest and unassuming, diffident in manner, yet wise and careful, he gave one the impression of weighing all sides of the case and then giving the best advice that it was in him to give. He was an honoured member of our Institute and often attended its meetings. It is sad to think that on the Monday, at a meeting in connection with the preservation of the City churches, Lord Plymouth, in answer to congratulations on the improvement in his health, said it was good to feel better after his long illness ; and on the Wednesday he was dead. In the notice of his life in the *Times* of 8 March the writer said that in South Wales, where a large part of the family estate is situated, Lord Plymouth was known as "The Good Earl." I cannot imagine a happier epitaph.

THE LATE SIR J. J. SHANNON, R.A. [Honorary Associate].

Many members of the Institute will have learnt with great regret of the death of Sir James Shannon, who died unexpectedly on 6 March. His portraits of Sir William Emerson and Sir Reginald Blomfield are two of the most notable works in the gallery of fine portraits of Past Presidents which decorate the walls of the Institute.

Sir James was born in 1862 at Auburn, in the State of New York, and came to England when he was sixteen. For three years he worked at South Kensington, and in his second year won a gold medal for a painting of the figure. At nineteen he received his first commission, which was hung at the Royal Academy. "Though success came to him with unusual quickness," according to the *Times*, "it cannot be said to have been undeserved, for his portraits were at once faithful and decorative, and he had a sound technical method and a delightful sense of style ; nor were foreign judges less favourably impressed than those at home." While portraiture was Sir James's chief interest, he sometimes turned to subject painting. "The Flower Girl" was bought by the Chantrey Trustees in 1901.

Sir James, who was knighted last year, was a good practical administrator as well as a good painter, as was shown by his efficient work as president of the Society of Portrait Painters. He was an original member of the New English Art Club, and though not strictly a Chelsea man he belonged to the Chelsea Arts Club. He was also a member of the Royal Hibernian Academy and the Royal British Colonial Society of Artists.

He was elected an Honorary Associate R.I.B.A. in 1904.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS.

It has been decided by the Council to present a Petition to the Privy Council in opposition to the Petition of the Institute of Cost and Works Accountants for the grant of a Royal Charter.

EXHIBITION OF FRENCH ARCHITECTURE.

It has been decided to hold an Exhibition of French Architecture in the R.I.B.A. Galleries in the autumn.

ARCHITECTS' AND SURVEYORS' APPROVED SOCIETY.

A grant of £75 has been made by the Council to the Approved Society to assist in liquidating the deficit on the Administration Account.

LONDON SQUARES.

A communication is to be sent by the Institute to the London County Council urging that steps should be taken to ensure the preservation of the London squares.

Allied Societies

LIVERPOOL ARCHITECTURAL SOCIETY.

On 6 March the Liverpool Architectural Society (Incorp.) held a dinner at the Midland Adelphi Hotel, the occasion being the commemoration of the seventy-fifth anniversary of the formation of the Society, which was founded on 1 March 1848, and is thus the premier provincial Architectural Society.

Mr. Gilbert Fraser [F.J., President of the Liverpool Society, occupied the chair.

The guests, to the number of about one hundred, included the Lord Mayor (Mr. F. C. Wilson) and the Lady Mayoress ; Mr. Paul Waterhouse, President of the Royal Institute of British Architects ; Mr. Francis Jones, President Manchester Society of Architects ; Mr. W. A. Harvey, Past President Birmingham Architectural Association ; Mr. J. G. Adam, Vice-Chancellor Liverpool University ; Mr. W. F. Thornton, President of the Liverpool Master Builders' Association ; Mr. Guy Rogers, President of the Liverpool Artists' Club ; Professor T. B. Abell, President of the Liverpool Engineering Society ; Mr. S. A. Kelly, President of the Liverpool Branch Surveyors' Institute ; Mr. Stuart Deacon, Stipendiary Magistrate ; Mr. F. H. Edwards, President Liverpool Law Society ; Alderman John Lea, Chairman Liverpool Arts Committee ; Mr. John A. Brodie, Liverpool City Engineer.

After the loyal toast of the Duke of Lancaster had been duly honoured, Mr. W. E. Willink, in proposing the toast of the City of Liverpool, referred to the important new Parliamentary powers under which the elevations of a new building previous to its erection must receive the approval of the Corporation and the interest which was felt by the profession as to the manner in which these new powers would be applied. The responsible official or committee should have qualifications for dealing with the subject, and in this matter the society was willing to give its further assistance, in the interests of the City, to which the Lord Mayor replied in appreciative terms.

Mr. Paul Waterhouse, in proposing "The Liverpool Architectural Society," said that, as a boy, he was taught by his father to admire St. George's Hall. Now he adored it. In connection with the Wren bicentenary it was interesting to recall that 100 years ago the father of Elmes, the architect of St. George's Hall, wrote a book in commemoration of Sir Christopher Wren. Outsiders sometimes said that architects had formed their societies because they wanted a trade union. Never was a falser accusation made. It was true they were wise in banding themselves together to resist the attacks of the public, but those attacks were very few and far between. It was the aim of the societies that architects should cease warring against one another, and let everybody

have his chance. The more they fostered etiquette the happier life became. Wren's universal equipment in science and literature enabled him, in a moment of emergency and almost without special architectural training, to spring into being as one of the greatest architects the world had ever known. His lesson for present-day architects was that the more they knew in other directions, the better were they prepared as architects.

Mr. Gilbert Fraser, in responding, said that if architects criticised development schemes it was only because they had the interests of the city at heart. It was very desirable that the new powers of the Corporation with regard to buildings should not be abused. The society had already rendered considerable assistance to the Corporation, and was always willing to do so when called upon.

Mr. Francis Jones responded on behalf of the guests.

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

The annual dinner of the York and East Yorkshire Architectural Society was held at the Royal Station Hotel, York, on 1 February 1923.

Among the company present were Mr. Stephen Wilkinson (Vice-President), in the chair, Mr. Ian MacAlister, secretary of the R.I.B.A., Mr. J. M. Dossor (Hull), Mr. W. E. Parkinson, head master of the York School of Arts and Crafts, Mr. E. A. Pollard (Hon. Treasurer), Mr. J. E. Reid (Hon. Secretary), and Messrs. Geo. Benson, C. E. Elcock, A. G. Stevenson, S. Needham, F. W. Porteous, J. Vause, R. A. Darling, A. Cowman, J. Ferguson, Kenneth Ward, C. H. Bridgen, J. S. Syme, R. Jackson, C. W. C. Needham, A. B. Burleigh, and T. Snowdon (Hull).

At the conclusion of the dinner Mr. Wilkinson welcomed the guests on behalf of the Society.

Mr. J. M. Dossor [F.J., Vice-President, in proposing the health of the Royal Institute of British Architects, said that all provincial societies ought to support the Institute. He said that a great many architects had set up in practice who should first have entered some office to gain more experience and to have become members of the Institute. It was necessary that they should become members of the central body. Since the war he had noticed that the usual type of client had been superseded by a new kind that did not discriminate between an architect and a commercial man. No member of the R.I.B.A. would undertake work at a lower commission than that prescribed by that body, but there was a grave danger of inexperienced and young men who did not belong to any architectural society doing so.

Mr. MacAlister, Secretary R.I.B.A., in responding to the toast, pointed out that the R.I.B.A. was the head of a great federation made up of the allied societies—extending over the whole Empire. He urged members in the provinces to take a more lively and continuous interest in the work of the R.I.B.A., which belonged to them in the fullest sense of the word.

Mr. A. G. Stevenson proposed the health of the York and East Yorkshire Architectural Society. He very humorously referred to the lack of houses in the lives of our

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

primeval ancestors and to the first appearance of the architect. He hoped that several of the castles in the air dreamt of by architects would be realised.

Mr. Stephen Wilkinson [F.R.I.B.A.], Vice-President, in responding to the toast, deplored the fact that some of the modern buildings in York were not in agreement with those of the past. He expressed regret that Mr. Paul Waterhouse, President of the R.I.B.A., Mr. A. E. Munby, and Sir Edwin Lutyens were unable to be present.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

Résumé of Paper read by Mr. Benjamin Walker [A.J.] on 9 March 1923:—

To appreciate Bruges properly its position on the map should be studied, both from a political and orographical point of view. Its position and relation to the towns in the Rhine Valley and Germany, and in relation to the Paris basin of Northern France, should be noted, and also the configuration of the land around. Bruges is situated in a plain which formed a natural and easy highway between Germany and the Baltic on the north, and France on the south. This, the plain of Flanders, was the meeting place of the Romanised Celtic South and the Teutonic Northeast, and has been a zone of strife through all the ages. Their situation being such, Bruges and the other towns of the district are not built round the cathedral as in the towns of the Paris basin, but round the Belfry, or Beffroi as it is called. Although sometimes containing bells, this was principally a watch tower from which the whole of the plain could be surveyed and a first entry of invaders detected. Flanders might be overrun from the south, the north-east, and more rarely from the sea on the west, from which direction came the Northmen in the ninth century. Bruges owes its origin to this invasion, having been chosen by Baldwin, Count of Flanders, as the site for his castle. Baldwin had been entrusted by Charles the Bold with the defence of this portion of his dominions. He built his castle on a small tongue of land at the junction of the Roya and the Boterbeke. This was the nucleus of Bruges, and, the castle having disappeared, is now the Place du Bourg. Subsequently its position caused Bruges to become the chief port of entry of the raw wool from Britain, which came by way of the Zwyn, a stream which at that time ran into the Scheldt. In the fourteenth century the population of Bruges was 250,000. Twenty foreign consuls occupied palaces in the City, while merchants from every country of Europe bought and sold in her markets. This was the great period of her prosperity, for as early as 1410 the navigation of the Zwyn had become difficult and by 1550 Bruges was altogether cut off from the sea. During the period of her prosperity building activity was great, and many beautiful buildings, mainly of brick, testify to this. Near the Grand Place, from which it is reached by the short Rue de la Breda, is the smaller and much more interesting Place du Bourg. Here, side by side, stand St. Basil's Chapel and the Chapel of the Holy Blood; the Hotel de Ville, dating from the last quarter of the fourteenth century; the Municipal Record Office, a Renaissance building of 1540 or thereabouts; and the Palais de Justice, built 1722-27. Opposite, on the north side of the Place, is the Prevote, built in 1662. Leaving the Place du Bourg by the narrow Street of the Blind Donkey and crossing the canal,

one comes to the Fish Market. Continuing by way of the Quai de Rosaire and the tree-shaded Dyer, one soon reaches the Hotel Grauthuuse, once the home of one of the merchant princes of Bruges, and now a Museum; and the Church of Notre Dame. A little further on are the Hospital de St. Jean, where are preserved some of Memling's masterpieces; the Cathedral of Saint Sauveur and the Béguinage.

Competitions

THE NEW TOWN HALL AND MUNICIPAL OFFICES, COLOMBO.

The following are the premiated designs in the recent competition for the New Town Hall and Municipal Offices, Colombo:—

1. Mr. S. J. Edwards, M.A., A.R.I.B.A., P.A.S.I., of the firm of Messrs. Ralph Booty and Co., Architects, Singapore.
2. Mr. W. H. Bourne, F.R.I.B.A., Allahabad, India.
3. Mr. Frank Lishman, F.R.I.B.A., Consulting Architect to Government of the United Provinces, Allahabad, with whom was associated Mr. Ram Sharma, Architect, Allahabad.

Twenty-six designs were submitted.

BOURNEMOUTH PAVILION COMPETITION.

Town Clerk's Office,
Bournemouth,

9 March 1923.

I beg to inform you that at the meeting of the Council on 6th instant it was resolved to grant to competitors an extension of time, beyond 12 May, of one month. A number of questions have been received, which will be answered and all the answers circulated to the competitors in due course.—Yours faithfully,

HERBERT ASHLING,
Town Clerk.

OSSET WAR MEMORIAL COMPETITION AND HAIFA BUSINESS CENTRE COMPETITION.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competitions because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

TROON WAR MEMORIAL.

The following letter has been received by the Secretary of the Institute from the Town Clerk of Troon, dated 19 March:—

DEAR SIR,—I have submitted your letter of the 5th instant to the Committee. I have pleasure in informing you that they have agreed that the Competition should proceed in accordance with Regulations A to F of the R.I.B.A., and I have to-day written Mr. Miller, the Assessor, advising him.

NEW MASONIC BUILDINGS, SWANSEA.

The President of the Royal Institute of British Architects has nominated Mr. Arthur Keen, F.R.I.B.A., as Assessor in this competition.

IAN MACALISTER,
Secretary.

REGISTRATION BILL

THE LONDON COUNTY HALL.

HEATING AND VENTILATION.

Owing to the length of the recently published paper by Mr. Ralph Knott and Mr. W. E. Riley on the London County Hall, it was not found possible to publish in the JOURNAL of 27 January 1923 information as to the persons responsible for certain details of the work. At the request of the authors, the following additional information is now furnished.

Negotiations for the acquisition of the necessary property were conducted by the Council's Valuer, the late Mr. Andrew Young, F.S.I., and since his retirement in December 1914 by his successor, Mr. Frank Hunt, F.S.I. The financial work, including the investigation of claims in respect of trade interests in property required for the site, has been in the hands of the Comptroller of the Council, Sir Harry Haward, and of his successor in April 1920, Mr. C. D. Johnson; these gentlemen were also responsible for the special arrangements which had to be made for a continuous check on the contractors' accounts when work was resumed in 1919 on the basis of the Council paying the actual cost with a fixed allowance for profit, etc. The legal work was in charge of the Council's Solicitor, Mr. Seager Berry, until his resignation in November 1907, then in charge of Mr. Edward Tanner until his retirement in December 1917, and since that date of Mr. D. P. Andrews. The quantity surveyors were Messrs. John Leaning and Sons and Messrs. Rider, Hunt and Co., and Mr. R. R. Burton, F.S.I., directly represented the Council. Messrs. Holland and Hannen and Cubitts' agent for the work has been Mr. C. R. Waters, their general manager on the work Mr. I. Stone, and the manager in their joinery department Mr. W. T. Sweett. The Clerk of Works engaged in supervising the contract, under the direction of the architects, is Mr. W. H. Hookham, assisted by Messrs. A. H. Castle and Mr. W. B. Johnson. Mr. H. E. Mitchell, M.I.C.E., was Mr. Knott's consultant as regards heating and ventilation during the period from 1913 to 1919; and although for various reasons his scheme was not carried out by the contractors, certain features introduced by Mr. Mitchell were incorporated in the installation. Perhaps the most distinctive feature which he originated is the method of air distribution in the Council Chamber by means of alternative inlets connected with each individual seat.

Special duties relating to the supervision of the heating and ventilating work were delegated to Mr. T. Moodie, M.I.Mech.E., M.I.I.V.E.

REGISTRATION BILL.

In pursuance of the decision of the Special General Meeting on 29 January, it has been decided by the Council to invite all the bodies which were represented on the Unification and Registration Committee, and any others which may be affected, to consider the draft Registration Bill, to indicate any points in which they think it might be improved or amended, and in due course to appoint representatives to attend a meeting for the discussion of the Bill.

NATIONAL HOUSING POLICY.

The Report of the R.I.B.A. Housing Committee on the National Housing Policy has been adopted by the Council and ordered to be submitted to His Majesty's Government.

BUILDINGS BYE-LAWS.

The Report of the Building Code Joint Committee has been adopted by the Council and ordered to be submitted to His Majesty's Government. This Report recommended the periodical revision of Bye-Laws, the establishment of an Appeal Tribunal, and contained suggestions for a greater uniformity in Local Bye-Laws.

EMPIRE FORESTRY ASSOCIATION.

Mr. H. D. Searles-Wood, Vice-President, has been nominated by the Council to serve upon the Governing Council of the Empire Forestry Association as the representative of the R.I.B.A.

REINSTATEMENT OF LICENTIATES.

The following have been reinstated as Licentiates:—
J. Ross Wills, Ernest Sprankling, E. H. Wigley,
A. H. Barnes, C. Procter Sherwin.

BOARD OF ARCHITECTURAL EDUCATION.

R.I.B.A. PRIZES AND STUDENTSHIPS, 1923.

The Prizes and Studentships Pamphlet of the R.I.B.A. has just been published and is on sale at the Royal Institute, 9, Conduit Street, W.1, price one shilling exclusive of postage.

Prizes totalling in value nearly £2,000 are offered for the current year. The Pamphlet contains particulars of the R.I.B.A. Essay Prize; the Soane Medallion; the Pugin Studentship; the Owen Jones Studentship; the R.I.B.A. (Henry Jarvis) Studentship at the British School at Rome, the R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association, the R.I.B.A. (Henry Jarvis) Ex-Service Studentships at the Recognised Schools; the Grissell Gold Medal; the Arthur Cates Prize; the R.I.B.A. (Archibald Dawney) Scholarship; the Ashpitel Prize; and the R.I.B.A. Silver Medal for Recognised Schools.

"WHO'S WHO IN ARCHITECTURE," 1923.

The attention of members is called to the announcement relating to this publication which is issued with this number of the JOURNAL. The Council have intimated to the publishers their cordial approval of the project, in the belief that such a compilation will be of distinct value to the profession as a whole. Members and Licentiates are requested to fill up the form and post it within the next fortnight to:—

The Editor,

No. 2, "Who's Who in Architecture," 1923.
27-29, Tothill Street,
Westminster, S.W.1.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notices

THE ELEVENTH GENERAL MEETING.

The Eleventh General Meeting (Ordinary) of the Session 1922-1923 will be held on Monday, 9 April 1923, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on 19 March 1923; formally to admit Members attending for the first time since their election.

Mr. Henry M. Fletcher, M.A.Cantab. [F], to read a Paper on "The Architecture of Provincial France."

VISITS ARRANGED BY THE ART STANDING COMMITTEE.

The visit to Messrs. Selfridge and Co.'s building in Oxford Street, postponed from 24 March, will take place on Saturday morning, 7 April, at 10.30. Members and Licentiates intending to take part should inform the Secretary R.I.B.A. not later than Thursday, 29 March.

The visit to Messrs. Crittall's Metal Works, originally fixed for Saturday, 14 April, has been postponed. Particulars of the re-arranged date will be published in due course.

ELECTION OF MEMBERS, 11 JUNE 1923.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the last Election this Session they should send the necessary nomination forms to the Secretary not later than the 5th April.

ANNUAL CONFERENCE, 1923.

The Annual Conference of the R.I.B.A. and Allied Societies will be held in Edinburgh from 13 to 16 June.

Members' Column

MR J. F. B. COWPER.

MR J. F. B. COWPER (Associate), late Superintending Architect of the Ministry of Agriculture for the South of England, has resumed practice at 5, King's Bench Walk, Temple, E.C.4. Tel.: 7746 Central.

MR. C. D. ALDERIDGE.

MR. C. D. ALDERIDGE, D.S.O., A.R.I.B.A., has commenced practice at No. 15, Bowalley Lane, Hull.

MR. JAMES M. HONEYMAN.

MR. JAMES M. HONEYMAN [A] has commenced practice as an Architect at 193, West Regent Street, Glasgow, and will be pleased to receive manufacturers' catalogues and samples for filing.

CHANGES OF ADDRESS.

MR. PERCIVAL M. FRASER is leaving 11 New Court, Lincoln's Inn, at the end of this month, and on and after 1 April his new address will be 22 Buckingham Palace Road, S.W. Tel.: Victoria 0189.

MR. WILLIAM DEAN, A.R.I.B.A., late of Lancaster, has changed his address to 15 Halstead Best, Esq., F.A.S.T., 87 Church Street, Duxford.

MR. PERCIVAL C. BLOW, A.R.I.B.A., has transferred his office to 17, London Road, St. Albans, to Bank Chambers, 1, High Street, St. Albans. Tel.: St. Albans 287.

MESSRS. WALGATE & ELSWORTH have removed to new offices in Bell's Chambers, Church Square, Cape Town. Their telephone number is Central 4497.

PARTNERSHIPS WANTED.

ASSOCIATE R.I.B.A. desires partnership in busy office; 14 years' experience in London and provinces. Experienced designer of domestic, public, and commercial office buildings. Three years, pre- and post-war, assistant to Sir Edwin L. Lutvens, R.A. F.R.I.B.A., with whom at present engaged; also experience with other eminent London architects. Reply Box 475, c/o Secretary R.I.B.A., Conduit, W.1.

YOUNG ENERGETIC ASSOCIATE, practising in the West End of London, seeks partnership. Can introduce clients and would invest a moderate sum. Junior partnership in old-established practice preferred.—Apply Box 864, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A. (35), with considerable country work in hand, desires to purchase partnership with established Architect (London preferred), with first-class general practice. Highest credentials given and required.—Write Box 2033, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENTS WANTED.

ARCHITECT, 36 years of age, A.R.I.B.A., P.A.S.I., qualified for F.S.I., F.R.G.S., desires appointment or partnership, provinces preferred. Experienced in church, domestic, and large municipal work in best London offices.—Apply Box 1533, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE R.I.B.A., with 12 years' varied experience, good designer with exceptional experience in school, domestic and factory work, requires share in bona fide practice or Senior Assistant's post with view to same.—Apply Box 973, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

Minutes XI

SESSION 1922-1923.

At the Tenth General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 19 March 1923, at 8 p.m., Mr. H. D. Seales-Wood, Vice-President, in the chair. The attendance book was signed by 9 Fellows (including 3 Members of the Council), 16 Associates, 2 Licentiates, 1 Hon. Associate, and a number of visitors.

The Minutes of the Ninth General Meeting held on Monday, 5 March 1923, having been taken as read, were confirmed and signed by the Chairman.

The Secretary announced the decease of the Rt. Hon. the Earl of Plymouth, P.C., G.B.E., who was elected an Honorary Associate in 1903 and an Honorary Fellow in 1910; of Sir James J. Shannon, R.A., who was elected an Hon. Associate in 1904, and it was RESOLVED that the regrets of the Institute for their loss be entered on the Minutes, and that a message of sympathy and condolence be conveyed to their relatives.

The following Member attending for the first time since his election was formally admitted by the Chairman :—

The Rev. P. H. Ditchfield, F.S.A. (Hon. Associate).

Mr. G. E. S. Stretefeld, O.B.E., D.S.O. [F], having read a Paper on "The Hammersmith Housing Scheme," a discussion ensued, and on the motion of Mr. W. Percy Waters, Chairman of the Hammersmith Housing Committee, seconded by Mr. Raymond Unwin [F], a vote of thanks was passed to Mr. Stretefeld by acclamation, and was briefly responded to.

The proceedings closed at 10.10 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



The Hammersmith Housing Scheme

BY G. E. S. STREATFEILD, O.B.E., D.S.O. [F.]

(*Read before the Royal Institute of British Architects, Monday, 19 March 1923.*)

WHEN I was first asked to read a paper on the subject of the Hammersmith Housing Scheme, I felt that all architects must be so sick of the whole housing question that it could not be of any real interest to them, but there is a personal interest as regards the Hammersmith Housing Scheme which might specially appeal to the Institute, for it was one of the last works undertaken by Mr. Henry Hare, who, as you all know, was one of the Past Presidents of this Institute. I need not emphasise the serious loss it was to the profession and the great personal loss it was to all his friends when he died in January 1921.

In January 1919 the Hammersmith Borough Council appointed a special Committee, called the Housing, Improvements and Development Committee, to report upon and carry out schemes sanctioned by the Council and H.M. Government, relating to the provision of houses for the working classes, and also to deal with schemes involving the demolition and reconstruction of certain areas in the Borough. Schemes were at once submitted to H.M. Government dealing with (*a*) the construction of new houses on the Wormholt Estate, and (*b*) the reconstruction of an area generally known as the Creek area, in the southern part of the Borough.

The Borough Council then went to Mr. Hare, who was President of the Institute at that time, and asked him to undertake the work and to appoint three other architects to act with him as a panel in

conjunction with Mr. Hampton Clucas, the borough surveyor. He thereupon nominated Mr. Ernest Franck, Mr. Matthew Dawson and myself to act in this capacity. Mr. Hare lived to see the various contracts for building new houses on the Wormholt Estate started, and when he died the Borough Council appointed Mr. Bertram Lisle, whom he had taken into partnership, to carry on his work.

The Hammersmith Housing Scheme, as originally proposed, was divided into two distinct areas, the northern scheme for new houses, the southern scheme for clearing and replanning insanitary areas near the Creek as mentioned above, and there was also a temporary housing scheme to meet the immediate urgent demand. This latter scheme consisted of converting a munition filling factory of timber sheds into 41 hutments at a cost of £18,000, the accommodation varying from two to four bedrooms. It was never intended that they should be anything but a temporary palliative, but owing to the condition in the borough they are still being occupied. With your permission, we will take the southern scheme first.

One of the main arteries coming into London from the west passes through King Street and Hammersmith Broadway. At one part King Street is only 45 feet wide, and as trams also run down this street serious congestion is caused. In replanning this insanitary area, one of the important advantages to be gained was to construct a by-pass road, so that

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

through traffic could be diverted from this part of King Street. From the plans of the borough here produced you will see the streets as they now exist, and the suggestions made to provide a remedy. There is also another serious defect in the communications of the borough, in that there is no good road from north to south joining the Uxbridge Road to King Street, and you will see on the plan how it is suggested that this might be remedied, by taking advantage of the existing roads and widening and connecting them where necessary.

In dealing with this area it was impossible to avoid considering the treatment of the present picturesque river front. As you will realise, the view of the foreshore round Hammersmith bend is very charming, but, as in so many cases, the old riverside cottages have become insanitary, and the portion between the creek and Waterloo Road has largely become a dilapidated area, containing also various derelict factories. We therefore felt that, while preserving any buildings of special interest such as Kent House, Kelmscott House and River Court House, we ought to consider in what way an embankment could be constructed, should districts adjoining Hammersmith ever decide to form embankments along their river fronts, as Chiswick is doing and Fulham has already done. It was not suggested that this embankment should be used for main traffic, but rather as a broad riverside walk for the benefit of the inhabitants of Hammersmith. This embankment would add an average width of 50 feet to the present narrow roads, and would allow the people to enjoy the view of the river. Some of the old features, such as the fine old elm trees and the brick bastions, could be preserved on the front.

The creek, which was the outlet of the Stamford Brook into the river, over which old inhabitants can still remember the bridge in King Street, would form a natural feature of great charm, provided a weir were built across it to hold up sufficient water at low tide to prevent it from being, as at present, a mere muddy ditch. I here show you slides of the foreshore as it is at present, and of various buildings of interest in this area, and a plan showing what effect the replanning of the district would have. It is suggested in this scheme to convert the mouth of the creek into a boating centre with club houses and boat-building yards. The open riverside walk would be particularly valuable in this part of the borough, as it has at present only one open space.

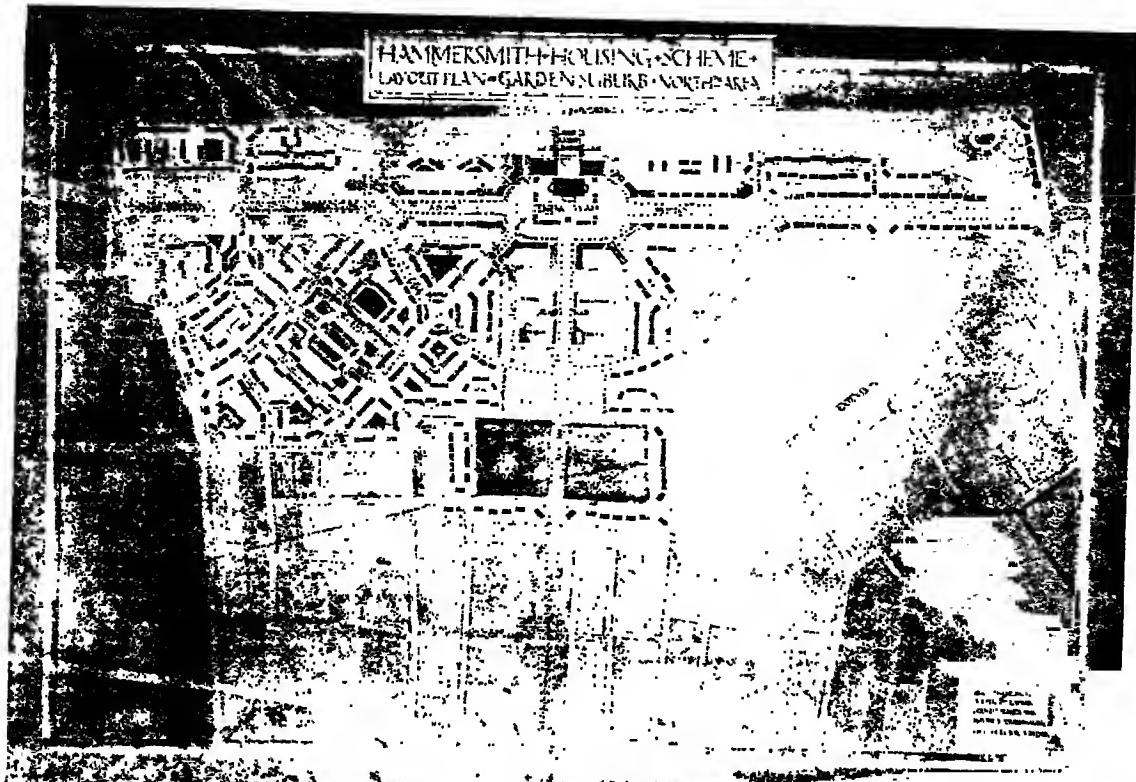
In developing the area to be cleared, it was proposed to build tenement houses round large quadrangles with grass in the centre of the courts, and I show you plans and elevations of these suggested buildings and a plan showing the general arrangement of these blocks. It was also proposed to put a building in the centre of the quadrangle, with small lock-up divisions in which perambulators could be kept, as it is impossible to expect women to drag their perambulators up two flights of stairs. It was also proposed to form in the roof of each block a common laundry, which would be available for the use of the various tenants. The accommodation provided was to be a living room, three bedrooms, a kitchen, scullery, etc. It is hoped before long to carry out a portion of this scheme, although for the present the development of this area is in abeyance. The Borough Council was very anxious to deal with this insanitary area, but the question of re-housing the families who live in the condemned houses until the new buildings are completed is a serious problem and must cause delay.

We now turn to the scheme for new houses on the Wormholt Estate. This lies south of the Central London Railway Extension and of the London County Council Old Oak Estate; adjoining it on the east are the grounds of the White City. This estate covers an area of 125 acres, which was bought at an average price of about £593 per acre from the Ecclesiastical Commissioners.

I now show you a plan of the general lay-out of this land, which was influenced to a considerable extent by the possible future development of the White City as a housing estate, which is sure to come some day. It was suggested, when this lay-out was decided upon, that there should be a station in the centre of the north side of the estate, and you will see that the roads from the estate lead up to a central square in which will be placed certain public buildings and a number of shops forming the approach to the station and the termination of the north and south road.

The whole of the estate is traversed from east to west by the new Great Western Avenue, and a width of 100 feet is reserved for this road. Although at present it is only being made 24 feet wide, it will ultimately become one of the main thoroughfares into London and be connected to Westbourne Grove and Marylebone Road.

In laying out the estate it was decided to avoid corner blocks and to keep, as far as possible, the



Matthew J. Dawson [F.



Lower Mall

THE HAMMERSMITH HOUSING SCHEME

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

through traffic could be diverted from this part of King Street. From the plans of the borough here produced you will see the streets as they now exist, and the suggestions made to provide a remedy. There is also another serious defect in the communications of the borough, in that there is no good road from north to south joining the Uxbridge Road to King Street, and you will see on the plan how it is suggested that this might be remedied, by taking advantage of the existing roads and widening and connecting them where necessary.

In dealing with this area it was impossible to avoid considering the treatment of the present picturesque river front. As you will realise, the view of the foreshore round Hammersmith bend is very charming, but, as in so many cases, the old riverside cottages have become insanitary, and the portion between the creek and Waterloo Road has largely become a dilapidated area, containing also various derelict factories. We therefore felt that, while preserving any buildings of special interest such as Kent House, Kelmscott House and River Court House, we ought to consider in what way an embankment could be constructed, should districts adjoining Hammersmith ever decide to form embankments along their river fronts, as Chiswick is doing and Fulham has already done. It was not suggested that this embankment should be used for main traffic, but rather as a broad riverside walk for the benefit of the inhabitants of Hammersmith. This embankment would add an average width of 50 feet to the present narrow roads, and wou'd allow the people to enjoy the view of the river. Some of the old features, such as the fine old elm trees and the brick bastions, could be preserved on the front.

The creek, which was the outlet of the Stamford Brook into the river, over which old inhabitants can still remember the bridge in King Street, would form a natural feature of great charm, provided a weir were built across it to hold up sufficient water at low tide to prevent it from being, as at present, a mere muddy ditch. I here show you slides of the foreshore as it is at present, and of various buildings of interest in this area, and a plan showing what effect the replanning of the district would have. It is suggested in this scheme to convert the mouth of the creek into a boating centre with club houses and boat-building yards. The open riverside walk would be particularly valuable in this part of the borough, as it has at present only one open space.

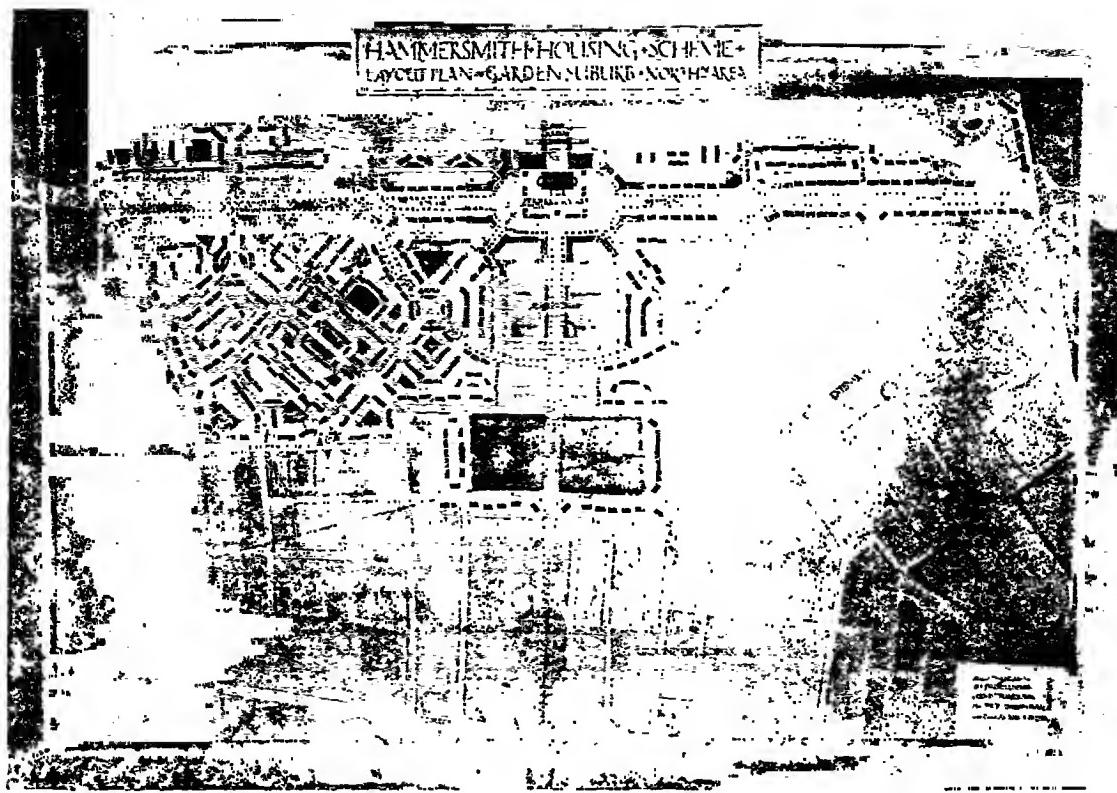
In developing the area to be cleared, it was proposed to build tenement houses round large quadrangles with grass in the centre of the courts, and I show you plans and elevations of these suggested buildings and a plan showing the general arrangement of these blocks. It was also proposed to put a building in the centre of the quadrangle, with small lock-up divisions in which perambulators could be kept, as it is impossible to expect women to drag their perambulators up two flights of stairs. It was also proposed to form in the roof of each block a common laundry, which would be available for the use of the various tenants. The accommodation provided was to be a living room, three bedrooms, a kitchen, scullery, etc. It is hoped before long to carry out a portion of this scheme, although for the present the development of this area is in abeyance. The Borough Council was very anxious to deal with this insanitary area, but the question of re-housing the families who live in the condemned houses until the new buildings are completed is a serious problem and must cause delay.

We now turn to the scheme for new houses on the Wormholt Estate. This lies south of the Central London Railway Extension and of the London County Council Old Oak Estate ; adjoining it on the east are the grounds of the White City. This estate covers an area of 125 acres, which was bought at an average price of about £593 per acre from the Ecclesiastical Commissioners.

I now show you a plan of the general lay-out of this land, which was influenced to a considerable extent by the possible future development of the White City as a housing estate, which is sure to come some day. It was suggested, when this lay-out was decided upon, that there should be a station in the centre of the north side of the estate, and you will see that the roads from the estate lead up to a central square in which will be placed certain public buildings and a number of shops forming the approach to the station and the termination of the north and south road.

The whole of the estate is traversed from east to west by the new Great Western Avenue, and a width of 100 feet is reserved for this road. Although at present it is only being made 24 feet wide, it will ultimately become one of the main thoroughfares into London and be connected to Westbourne Grove and Marylebone Road.

In laying out the estate it was decided to avoid corner blocks and to keep, as far as possible, the

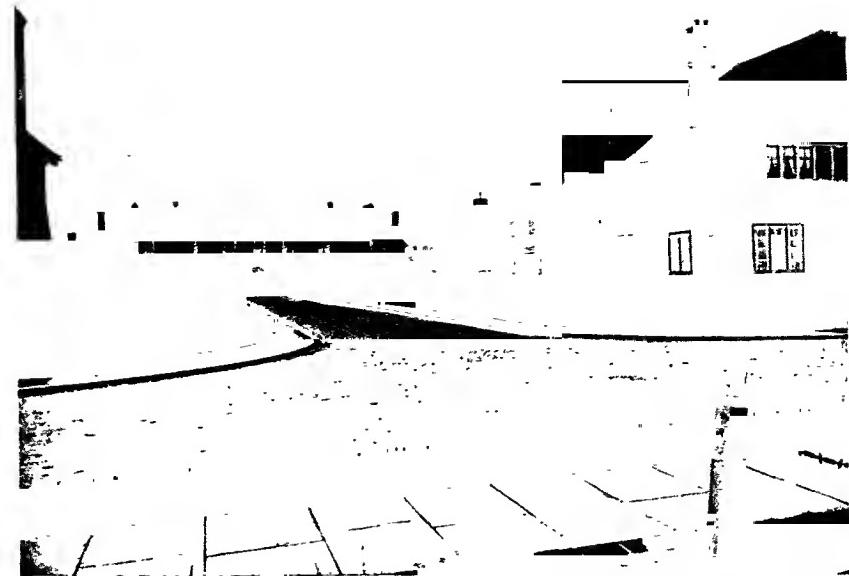


Matthew J. Dawson [F.



Lower Mall

THE HAMMERSMITH HOUSING SCHEME



H. T. Hare & Lisle

THE HAMMERSMITH HOUSING SCHEME



H. T. Hare & Lisle

THE HAMMERSMITH HOUSING SCHEME

THE HAMMERSMITH HOUSING SCHEME

corners of the roads open and to provide ample open spaces. For this purpose certain blocks of the houses are set back to form open squares, and playgrounds for the children are arranged behind the houses at the end of the gardens. These playgrounds were felt to be a very important feature as they keep the children out of the streets and avoid the danger caused by motor traffic; also the mothers can see from their windows what their children are doing. By means of these playgrounds access is given to the back doors of middle houses, and wherever this has not been possible a common passage is formed through the block of houses so that every house has a separate way to the back door. Thus all back roads and narrow alleys behind the houses are avoided.

Between the houses and the streets, it was intended to keep all the forecourts open on the plan so common in America, which gives a sense of great space to any street as the width is only bounded by the walls of the houses. Unfortunately the Englishman is very conservative, and the tenants have never ceased to agitate to have these forecourts enclosed. The Borough Council has therefore agreed to plant a privet hedge along the edge of the pavement, but this is not to be allowed to grow more than two feet in height. This will give a certain privacy to the forecourts and prevent strangers walking across them.

I now show you certain views of various parts of the estate; plans and elevations of various blocks of houses are hung round the walls. Grass margins have been kept in all cases between the footpath and the roadway.

Great credit is due to the Borough Engineer and his staff for the excellent way the roads and footpaths, open spaces and squares have been carried out; and we feel indebted to him for the keenness he has shown in helping to realise our ideas.

In reference to the selection and planting of the trees on the estate the panel approached Mr. F. J. Chittenden, the Director of the Royal Horticultural Society's Gardens at Wisley, and he most kindly came over and gave us the benefit of his experience and advice. He selected for us a number of trees both from an æsthetic and also from a utilitarian point of view—to give colour and shape while at the same time avoiding expenditure upon pruning and street cleaning. The thanks of the Borough are due to Mr. Chittenden for his valuable assistance.

As to materials. Against Mr. Hare's and the

panel's strongly expressed opinion we were compelled by the Ministry of Health for the sake of economy to adopt in the first contract for 68 houses, a partially concrete block construction, and we can add that experiment has amply justified our opinion. The remainder of the contracts have all had 11-inch cavity external walls and main internal walls of brick only. The difficulty of obtaining tiles was overcome by importing pantiles from Belgium, which were brought up to Hammersmith in barges. I believe these were the first pantiles imported to meet the shortage of tiles. They are laid upon Ruberoid and we have not had a single case of water coming in.

As to other points of construction. The upper windows are all hung to projecting hinges, which make the outside easy to clean, and in all bedrooms one small pane in a metal casement is hung to give ventilation.

The Hammersmith Borough Council determined to maintain the high standard originally proposed in the Tudor Walters report, and insisted that all the houses should be provided with hot water, lavatory basins, and bathrooms separate from the water closets, and in the later houses should have a height of 8 feet 6 inches clear to all rooms.

You will like to know something about the cost and the various rents. There are two contracts for 45 terra-cotta houses which were carried out under the Borough Surveyor, on an estimate of £19,872; with these the architects had no concern. Two contracts were carried out by Messrs. Alban Richards & Co. for a total of 198 houses at an estimate of £179,350, subject to adjustment for rise and fall. Messrs. J. Macmanus, Ltd., built 308 houses on a basic price contract amounting to £295,372 10s., which was also subject to adjustment. 39 houses and 4 shops with flats over them are now being built at a cost of about £21,500. The total cost of building 545 houses, 4 shops and 4 flats amounts to about £590,000, an average of about £1,065 per house. The cost today would be only about half this sum. The construction of the roads and sewers will be carried out at an estimated cost of £162,460. The rents have been fixed for "A.3" houses at 14s. a week, for "B.3" houses an average of 16s., and for "B.4" an average of 17s., the tenant paying all rates. It was decided that not more than one-third of the total number of houses should be sold to people living in the Borough of Hammersmith, if desired, and the Ministry agreed to fix the price at about two-thirds of the actual cost

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

of building. They are sold on a 99 years' lease, subject to £5 per year ground rent.

The tenants have formed themselves into an Association with a committee. The object of the Association is to safeguard the general welfare of the occupiers, and their committee is most useful in bringing before the Estate manager and the Council matters which tend to the comfort and amenities of the Estate. The Council has appointed an Estate manager, who is in constant touch with this committee, but also collects all the rents, and is therefore in personal contact with all the tenants. He is thus able to keep the Council informed of all matters connected with the Estate.

The Council felt it important for the sake of health and cleanliness that all the houses should be lighted by electricity ; at the same time, it was felt that gas was very essential for cooking purposes. The Ministry of Health considered that the supply of gas as well as electricity was unnecessary, but after much negotiation it was agreed that in consideration of the Council accepting 13 $\frac{1}{2}$ per cent. instead of 15 per cent. for repairs, the cost of both supplies should rank for subsidy.

That portion of the estate already developed as regards the approximate number of houses to the acre is as follows :—

Taking the gross area, including roads and open spaces, an average of 12 houses to the acre. Taking the net area, excluding roads, etc., an average of 16 houses to the acre is obtained.

The frontages facing Western Avenue, Old Oak Road, and Steventon Road are being reserved for houses of a larger type, and are available for private buildings and for shops in certain selected localities.

Sites for public buildings and churches have been reserved at axial points, where they will close the end of a vista. It is shown how this occurs with the church already erected. An open-air swimming bath is under construction by the Borough Engineer.

In spite of all that has been done the condition of the housing in Hammersmith is still causing much anxiety to the Mayor and the Borough Council. We should like to pay a tribute to the enthusiasm and public spirit shown in the way this question of housing has been dealt with by the Hammersmith Borough Council under the inspiration of his Worship the Mayor, and the able guidance of Mr. Waters, the chairman of the Housing Committee. A tribute is also due to the keenness shown by the Town Clerk, Mr. Leslie

Gordon, who has been tireless and unflagging from the inception of the scheme.

The following figures are very illuminating on the condition of the housing in this borough, which is, of course, very much better than in a large number of other boroughs in the London area. There are in Hammersmith 1,928 families still living in one room only, 5,615 families living in two rooms only, and over 8,000 families living in three rooms. If this is the case in Hammersmith, what must it be elsewhere, and how urgent must be the need for carrying on the housing policy. It may be a serious tax on the finance of the country, but from the view of true economy the nation is losing far greater sums by the national loss of health and efficiency which this overcrowding is bound to cause.

In conclusion I should like to say quite a few words on housing in general. I can speak as a Guardian of the Poor and a District Councillor, as to the serious and anxious thought that is being given to this question by all local authorities.

If the conditions in Hammersmith, one of the best boroughs in this respect, are as I have stated, what must they be elsewhere ?

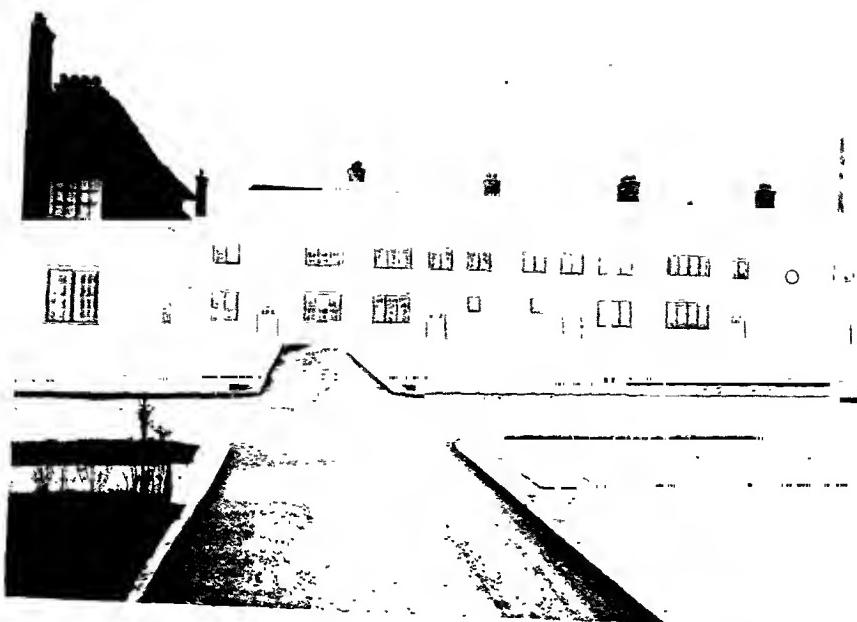
These conditions exist not only in London but in every town, yes, and almost every village, throughout the length and breadth of our land. I represent one of the most beautiful parts of Kent, and only last Wednesday, among other cases, we were faced with a family consisting of a father, mother and seven children with no sleeping accommodation beyond one small bedroom and the staircase landing ; willing to pay rent, but nowhere, absolutely nowhere else to go. Gentlemen, we boast of being civilised, but these families are worse off than savages. A savage could go out and put up a new wigwam, but our own folk are powerless to help themselves.

Mr. Lethaby, who has the power of putting into a sentence more than some people into a volume, has written : "We make the Towns, but the towns make the Children."

We architects sometimes forget that in the houses we build we are helping to form the minds and characters of the generations who will be brought up in these homes, and not only of those who live in them but of everyone who passes by.

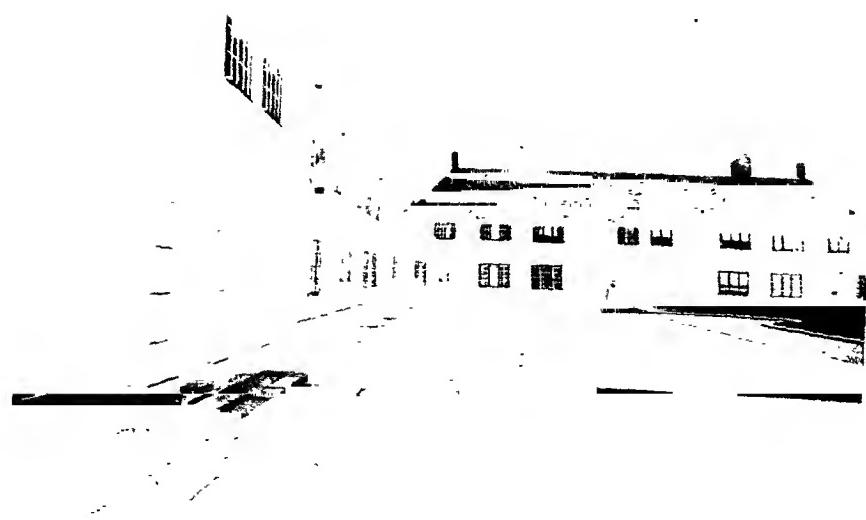
These housing schemes have been a great opportunity and a great responsibility for good or evil placed in our hands.

It has in the past generally been one house and one family whose future was entrusted to us, but



THE HAMMERSMITH HOUSING SCHEME

G. E. S. Streetfield [F.]



THE HAMMERSMITH HOUSING SCHEME

J. Ernest Franck [F.]



THE HAMMERSMITH HOUSING SCHEME

Matthew J. Dawson [F.]



THE HAMMERSMITH HOUSING SCHEME

Matthew J. Dawson [F.]

Proposals for the Adoption of an Academic Dress for Members and Licentiates of the Royal Institute of British Architects



FOR FELLOWS.



FOR ASSOCIATES.



FOR LICENTIATES.

IT has been suggested to the Council that an Academic dress should be officially adopted for the use of Members and Licentiates of the R.I.B.A. The Council referred the suggestion to a small Sub-Committee, which presented the following report:—

The Committee appointed by the Council to consider the question of an Academic dress for Members of the Institute have met, and beg to report as follows:—

1. *For Licentiates.*—Black gown with black hood, the hood being part of the gown. Two narrow dark orange

piping lines down the front, the same lines to be carried round the edge of the hood. The gown to have full black sleeves with narrow black band round the wrists. Black four-cornered biretta. (Approximate cost £5 5s.)

2. *For Associates.*—Same gown as above, but with two broad stripes of dark orange down the front. The hood to be part of the gown, but the whole of the inside lining of it to be dark orange. Biretta the same. (Approximate cost £6 6s.)

3. *For Fellows.*—Same gown as above, the hood to fit

Supplement to the JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

round the shoulders with close black buttons in front, and to form a short cape over the chest. The lining of the hood to be of dark orange silk and the hood itself to be silk. The only colour to be on the hood. Same biretta as above, but to have black silk revers at the back. (Approximate cost £6 6s.)

The Committee, with the assistance of expert advice, recommend these gowns as being of a dignified and traditional type. In all cases the hoods will not have to be put on over the head. They further recommend that actual samples upon the lines indicated above may be submitted without delay so that gowns may be ready for the Wren celebrations. This dress will hide all ordinary clothes.

W. E. RILEY.
W. GILLBEE SCOTT.
W. W. SCOTT-MONCRIEFF.

January 18th, 1923.

The Council decided that the suggestion, together with the report of the Sub-Committee, should be submitted to the General Body for consideration.

The drawings herewith reproduced show the type of dress recommended by the Sub-Committee for the three classes of membership. The colours suggested are black and old gold, and the description in each case is as follows :—

For Fellows :—

The silk-lined hood is attached to a cape of black silk with a narrow edging of colour, under which is worn the ordinary college gown of dull black cloth with full sleeves. The cap is the ordinary square-shaped college cap—the early form before the use of the mortar-board came in.

For Associates :—

The hood is attached to the gown, without a cape, and its colour is carried down the front of the gown with wide bands. The gown is as before, with full sleeves.

For Licentiates :—

Similar to the last, except that the hood is not lined throughout, but has an edging of colour, the same being carried down the front of the gown in a narrow strip.

THE HAMMERSMITH HOUSING SCHEME

now we are influencing hundreds of families directly and whole districts indirectly, and this opportunity is apparently to continue.

By the way we deal with these opportunities, so will future generations bless us or curse us. We are setting a standard not of individual houses, but for whole streets and districts.

Each scheme, however small, is a town planning scheme in miniature.

I know how we have been cramped by circumstances, how schemes that we felt were really good were turned down and had to be done all over again to save money.

It is difficult not to be disheartened, but we must keep pegging away and refuse to be rebuffed from doing the best we possibly can. It is not really a matter of cost but of sheer hard thinking how to achieve a high standard within the limits set.

The local authorities as a whole are keen and responsive if only we can inspire them with the vast importance of the opportunity now in their hands.

I am not only referring to the houses themselves. So long as they are simple, well planned, in good proportion, and of suitable material, they can't go far wrong. It is in the lay-out where the great opportunity comes.

Let us take the economic side.

When the great London landowners in the West End wanted to get the best rents, they deliberately formed great squares and open spaces. Look at the Bedford Estate, the Portman Estate and the Grosvenor Estate.

It was with no idea of philanthropy that these squares were made.

When the time comes for people to be able to afford economic rents for these new houses, as come it surely will, we shall find that the acre or two given up to open spaces is the best investment that has been made.

But far more important is the spiritual side of this question.

I sometimes go down to West Ham and those districts.

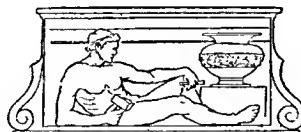
How, but by a miracle, can anything fine or noble come out of these mean streets? How can any child grow up with any ideal of beauty or dignity in such surroundings?

Nothing but tiny back yards and noisy dusty streets as the only vision of the wonderful and beautiful world into which these children are being born, not by hundreds or thousands but millions, in places like Shadwell and Wapping, Rotherhithe and Stratford, Haggerston and Hackney Wick, and the big Midland cities.

It is now for us to set a standard so that never again will anyone be allowed to build these rows and rows of hateful, sordid squalor.

Our fathers made these towns, and these towns have made the children that we know and deplore.

I am thankful to say that as a profession we are not required to hold ourselves guilty for these places; we never were consulted, but we can no longer escape the judgment of the future, for now the responsibility *has* been put into our hands, and it is for us, working with the councils, to set up the standard of a very different town, and these new towns, let us hope, will make very different children.



(*For the discussion on Mr. Streatfeild's Paper see overleaf.*)

Discussion on Mr. Streatfeild's Paper

MR. H. D. SEARLES-WOOD, VICE-PRESIDENT, IN THE CHAIR

Mr. W. PERCY WATERS (Chairman of the Hammersmith Housing Committee) : I have very much pleasure, as Chairman of the Housing Committee—and I am speaking also for the Hammersmith Borough Council—in proposing the very heartiest thanks to Mr. Streatfeild for his paper. It is not only an excellent paper, but an excellent advertisement for the Hammersmith Borough Council. The major portion of the work has been carried out by councillors of all political thought, almost as largely by those representing the Labour interest as any other interest. And although I do not myself belong to what is known as Labour, I wish to place on record the fact that all the members of my Committee worked together in bringing this scheme to fruition.

I should like also to congratulate the Ministry officials on the manner they have all along met us in our difficulties. The Committee were fighting a very bad case, a case of a partnership between the Government and municipalities, which does not work well, because the constitution of the Government is always changing, while the personnel of municipalities only partially changes every three years. Every new Head of a Ministry gives definite instructions, and you have very clever men at the Ministry, like Mr. Unwin, who have to fight very bad cases, and under the new head they have to say no to something they had previously to say yes to, and they sometimes have to argue against something which they know to be right because they have to serve loyally whoever happens to be at the head of the Ministry.

With regard to the southern improvement scheme in Hammersmith, we have now there a Council who are only going to proceed on lines which are purely economical, and that is due to force of circumstances, not because the Hammersmith Borough Council do not wish to give housing accommodation to everybody who needs it. The present Council have laid down this policy. I am very hopeful with regard to the improvement scheme that these splendid plans which you have seen on the screen and which the panel have drawn up will be proved to the new Councillors to be an economical proposition, and that we shall be able to effect the whole of this southern improvement scheme by degrees. We have already a cleared area, and that could be made part of a comprehensive whole. The trouble is this : some people are at the present time paying 4s. or 5s. a week for some awful hovel, and we cannot build a new place and let it at anything like that rent. I think we ought to make a start and put up something on the vacant land which would form part of a comprehensive whole, and eventually be linked up with the remainder. I am hoping our Town Clerk will convince the new

Council that this could be made an economical proposition. I should like to mention Mr. Greenall, who conducted the first inquiry under the Act of 1918. He conducted that inquiry in a thoroughly praiseworthy manner, and he was absolutely impartial. I and others accompanied him round the southern area, and showed him the conditions existing, and he listened to all the evidence for and against, and eventually we got through the order, but without any subsidy. That, of course, put a stop to things for the time being. But we are hoping that something may be done in that direction.

With regard to the remaining land of the Wormholt Estate, in the northern area, where we have built about 600 houses, I am very hopeful, there too, of seeing the wholescheme completed. But in that case also the Ministry are declining to grant subsidies ; though I believe they have made an offer of £6 per house, which means a £45 house. They will have to go one better than that. The Committee are actively at work, and I think they will be able to let this land to private builders. The Housing Committee lay it down as a hard-and-fast rule that private enterprise will have to comply with the plans of our panel of architects, so that the estate will be developed as a comprehensive whole.

I have not, so far, made any reference to the work of the late Mr. Hare. I want you to realise that the loss to us by his death was a very severe one ; it was greatly felt by the Hammersmith Borough Council, and by the Housing Committee in particular. But we are sure that his work will live after him. With regard to Mr. Streatfeild's remark that perhaps in fifty years we shall start again, I can assure him that if I live a few more years and others on the Committee do so, it will not be anything like fifty years. Someone has got to pay : those with moderate means and those with large means and those with little means will have to contribute, in some form, towards giving proper accommodation to these people who are living under such awful conditions. We must remember that children brought up in the midst of these bad surroundings are the future manhood and womanhood of the nation.

I beg formally to move a most hearty vote of thanks to Mr. Streatfeild for his very excellent paper.

Mr. RAYMOND UNWIN [F.] (Ministry of Health) : It is with very great satisfaction that I leave Whitehall to-night and come here to second the vote of thanks to Mr. Streatfeild—and I think perhaps he will allow me to couple with it his colleagues—not only for the paper he has read to-night, but for the great example of the architects' contribution to the housing question which he has given us. I should like particularly to thank him for what he said at the end of his paper, with which, as he knows, I am in entire agreement. I believe still he

THE HAMMERSMITH HOUSING SCHEME

suggests—and this is a remark I disagree with—that architects are sick of the housing question. I can only say that I am not, and all I want is to see another two hundred houses added to those we have already, and the sooner they are erected the better. It would be a disaster to this country if architects were sick of the housing question. The sooner more houses are put up, the better it will be for our children and for the future. I feel no doubt whatever on that question.

Of course we have had much criticism of the present housing policy ; we know that difficulties arose, many of them inherent in war conditions. We faced them equally when we went, at certain periods, to get a new suit of clothes, and we found that prices had soared up. And if we were in the same position with regard to those particular clothes to-day that we are in with regard to houses, if we were still paying instalments on £20 for a suit in 1921, and we were walking past shop windows and seeing " This style to measure, four guineas," we should be feeling very uncomfortable. That is one of the chief difficulties with regard to housing ; when prices are high you do not pay and have done with it ; you have to go on paying for the next sixty years, because you pay for your house out of rent spread over a great period. You think there must be something special in housing, whereas if you compare the price curve of housing with the price curve of other articles, you will find a remarkable similarity in the extent of the rise and the quality of the curve. Here we know there have been many causes which led to this difficulty. There were others due, as has already been shown, to the relations between the different parties to the scheme. It is always a difficulty when one party has to pay the bill and the other party has to expend the money. But these are details which we shall forget; and I am satisfied it will be an abiding satisfaction to you who have built these houses and to the local authorities for whom you have built them, that they have been well built, that they have been well designed, that the land has been well laid out. It has been said that our standards were too high; it may be. We have all made mistakes, no doubt. But I am not one of those who feel that that has been really the cause of our difficulties. I think we must all realise, as technical men, how very difficult it is for those people who are struggling with the financial problems and with the administrative problems to realise this as we do ; they have not the benefit of the clear guidance and sound technical knowledge which we have, or ought to have, in fixing a standard, and when houses are soaring up in cost to £1,060 each it is difficult for them not to believe there must be something wrong in the standard. We must not on that account get weary of housing, or alter our clear idea that there is, after all, only one way to solve the housing problem, and that is to get good houses built, houses which will improve the standard of the whole of the housing of the country. We are not

solving the problem unless we do that. We, as technical people, know that that is the economic way of solving housing. We have it before us day after day that if you reduce the size of your rooms below a fairly clearly defined line, the price of every foot of accommodation which you get steadily rises. We know that if you congest your houses on the land, you have to spend more on roads. I question whether the great boon which has been emphasised to-night, of having twelve houses to the acre instead of a possible twenty, has cost this country sixpence. My impression is that it has been a considerable monetary saving ; I think we should have had to spend considerably more on the roads for the whole of our housing schemes if we had not reduced the density to twelve to the acre. The utmost you can find, even in your case at Hammersmith, where the land is expensive—£590 an acre ; the average of the whole country's schemes is about £200 an acre—is that the difference in the price of that land as between twenty to the acre and twelve represents, on a 5 per cent. basis, 4*1*/₂d. for the difference in the land ; that is the maximum. Against that is the fact that it always costs more to develop with roads the more houses there are to the acre. Therefore the difficulty is infinitely small compared with the difference in health and amenity for the people. I am convinced there is no economy at all to be sought in crowding houses on the land ; that is where the least of all economies is to be found. There may be, and there are, economies in the building. We have had to study this, and we know more about it than we did years ago. There are economies in organisation of building greater than have been realised by many builders themselves. It is possible to build good houses at a reasonable price ; it should be possible for the people of this country, before long, to pay the rents which will show a return on the reasonable prices which are now possible. That being so, I hope sincerely that Mr. Streatfeild's forecast will come true, and that we shall go on studying this problem and help to find a solution. I think it is the most important domestic problem we have to solve. In conclusion, I thank the architects for the care which they have shown for some of the old memories of Hammersmith.

Mr. MARSHALL HAYS, J.P. (Mayor of Hammersmith) : We are very grateful indeed to the lecturer for the admirable way he put the case to us, and for the pictures he has shown. We have had the advantage of hearing him, not only from the professional point of view, but also as a District Councillor, and associated with work of this character in other ways. I was very glad to hear the Chairman of the Committee throw out such strong hopes in connection with the southern improvement scheme. I have been a resident in St. Peter's Square for nearly twenty years, and I am deeply concerned and interested in the southern improvement scheme. I am none the less interested in the northern

scheme, but I hope the south scheme will not be too long delayed. I have no doubt the financial considerations have a most important bearing on the delay of the work, and this must be got over. We have very bad quarters in a good many parts there ; I have been over them many times myself, and I feel it is a work which ought to be tackled as soon as possible. There is one other reference I would like to make. It is this : Mr. Streatfeild referred to some improvement which might take place with regard to the Embankment. Whatever is going to be done in that direction, I hope that some of the old houses and conditions along the Embankment will not be destroyed ; we must do our best to preserve a great deal of what is there now.

Dr. J. P. HOWELL (M.O.H., Hammersmith) : I do not know that I can usefully add anything to what has already been said. You have heard two of our prominent members of the borough discussing this problem, and probably they know more than I do about the subject, particularly with regard to the financial details. I am, as Medical Officer of the borough, interested principally, probably only, in the health of the borough ; and it has given me a great deal of pleasure to see the excellent way in which the housing problem has been tackled. As you have already heard, an inquiry was held in Hammersmith soon after the war was over, at which I appeared and gave my views, especially on the southern improvement scheme. That area is the oldest part of Hammersmith, which started on the riverside, where the oldest houses are, and, naturally, they are in a condition of extreme decay ; some have fallen down. Early in 1914 I had to advise the Council to issue closing orders in a particular street there, known as Trafalgar Street. The houses were closed, and one by one the inhabitants disappeared. The houses were old and dilapidated, they were not weather-proof, they were rat-infested ; and I think the inhabitants were as glad to leave them as I was to see them go. The space occupied by that street was a cul-de-sac, which could not be approached except through narrow lanes, and the houses were inhabited chiefly by costers, who sold their produce in the local streets. What was not sold on Friday and Saturday nights was subsequently "housed," if I may use that word for it, under the most undesirable conditions, and I do not think it could have been fit for human food on the Monday. But that area is now clear, and I hope that soon the part of the housing scheme in the southern area will be commenced, and the inhabitants of the houses which have to be closed down accommodated there. There are still, in that area, houses in a very sorry condition. It is pathetic to see with what affection people cling to these houses ; many have lived in them since they were children, some were born there, parents were buried from there, and it was the only area many of them knew in London. With regard to the health of the

people, it was pointed out to me that the children playing about the streets looked remarkably healthy. But it was really a case of the survival of the fittest. I was able to produce figures at the inquiry which was held before Mr. Greenall which showed that the death-rate in the area was considerably higher than in the rest of the borough, and that it was due to the bad condition of the houses and the old and crowded conditions too. There are many other areas in Hammersmith, not included in the original scheme, which require to be dealt with ; and that is a tale which is common to the whole of London, which has parts even worse than the areas in Hammersmith. Some of the back yards of the houses which have been built back to back are in a dreadful state ; and these are conditions which we, as Public Health Officers, have to keep a very observant eye upon and deal with.

Mr. LESLIE GORDON (Town Clerk of Hammersmith) : I appreciate this opportunity of saying how much I value the paper Mr. Streatfeild has read. And as an official of the Borough of Hammersmith I would like to thank the architects for the excellent way in which they, with Mr. Hare when he was alive, came forward to attempt to solve the problem before the Hammersmith Council. I think their success would have been complete by to-day if it were not for several factors which were not foreseen then, and which turned against them. One very serious factor was, I think, the "rings" in material. Then came the high price of money, which the Government could not combat at the time. It is a matter I have discussed very seriously with the Treasury and the Ministry of Health officials. I think the time has arrived when the 6 per cent. housing money could be reduced to $3\frac{1}{2}$ per cent. ; that would be of material benefit to the housing at once. There is no reason why money should be forced up to 6 per cent. when you are fighting for the lives of the people at home. And lastly, though probably not to the same extent, was the unfair advantage which the working men took in lessening output and getting increased money. I may be almost trenching on political issues, but I am giving an unbiased opinion as an official and outsider. Your financiers are still getting 100 per cent. above 1914 ; your producers are still getting 100 per cent. more, and your workers are down almost to the 1914 figure. It is that conflict of interests in this country which is retarding the solution of the housing problem. If the public spirit of local councils could find a harmonising factor in the financial circles, the producing circles, and the working circles of this country, Mr. Unwin's problem in directing housing would be solved within two years, and it is only a miracle which can produce it. At the moment we are living in a frightfully reactionary period, but I think that probably in a year or two the tide will begin to turn and will flow back towards better things. If men like the Mayor of Ham-

THE HAMMERSMITH HOUSING SCHEME

mersmith can educate the voter and show him that his real interest lies in improved conditions and better housing, architects have sufficient interest to carry out the highest ideals in housing. Mr. Streatfeild has shown there is a spirituality in a proper laying out of an area for houses and streets, and it will have a good effect on the morale of the country. If public men will create a public sentiment, and we have an enlightened set of architects who will carry out these ideas, and if the financiers will for a few years put money into the business and help the Government, instead of criticising them, I think you will have, by that method, and only by that method, a number of cities throughout Great Britain that, possibly in fifty or sixty years, will be to the benefit of the world, and produce a fine population.

Mr. B. GREENALL (Ministry of Health) : I do not know that I can usefully add anything to that which has already been said ; but I must say how very proud I am to have been identified, in a small way, with the first slum-clearance scheme which was prepared in this country since the passing of the 1918 Act. The conditions in Hammersmith simply appalled me. I remember going into one house, a few yards from Hammersmith Creek, and finding seven people in one small cellar, with no light at all. I afterwards inspected the Poplar slum area, and I do not think it was any worse than the slum area at Hammersmith.

Mr. J. E. FRANCK [F.] : I wish to add to what Mr. Streatfeild has already said, that we owe a deep debt of gratitude, as a panel of architects, to the Mayor of Hammersmith and the chairman of the Housing Committee for their help, and also to the whole Committee for their insistence on a high standard of housing. The members of the Committee wished not only to see something built in Hammersmith which would be for the benefit of the borough, but they wanted to set an example to the inhabitants so that they could spread the light elsewhere. I think architects, as a body, have risen to the occasion which has been offered them since the war ; they have given to the nation examples of what they can do and how they can house the working classes in the way they ought to live. I hope this Institute, if it can, by corporate action will impress on the Ministry more and more the necessity of working on progressive lines. A good environment is the greatest thing in this life ; we must educate the people, and cultivate in them a better spirit and a better character.

The only other remark I wished to make was to pay a tribute to Mr. Hare, who was the first chairman of

our panel, and to the other members of the panel, Mr. Streatfeild, Mr. Dawson, Mr. Lisle. We have worked together since 1919, and we have never had a wry word. Since Mr. Hare's death Mr. Streatfeild has been our chairman. I did not know Mr. Streatfeild before the war. He has been an inspiration to us. The Housing Committee will agree with me when I say Mr. Streatfeild has always been courteous, always kindly-intentioned, and has always helped us in every possible way.

Mr. WESTCOTT (Member of Hammersmith Borough Council) also spoke.

Mr. A. O. COLLARD [F.] : There is one class of the community which has not been particularly represented this evening in connection with Hammersmith. I am a ratepayer and dweller close to that southern area. I take the deepest possible interest in the affairs of Hammersmith, and in these schemes in particular. As a member of this Institute and as a ratepayer, I should like to say that the ratepayers of Hammersmith are watching this scheme with the keenest interest. And, if I may say so on behalf of those to whom I have mentioned the matter, we feel that the money is being spent properly, and we do not grudge it. Also, as a member of the London Survey Committee, I shall inform others with particular pleasure that the dear old parts of Hammersmith are to be left undisturbed. So long as these old houses are preserved I feel that Hammersmith, whatever is done in the southern and northern sections, will remain the charming district that it is at present. The conditions which have been explained by the Medical Officer have been, and still are, terrible. It is depressing to see the conditions in which some of the poor folk in our district are living ; and the sooner the Borough Council can proceed with this scheme the better it will be for all of us.

The resolution was carried by acclamation.

Mr. STREATFEILD (in reply) : Thank you for all the kind things which have been said. I must say one thing. I feel the deepest concern about the report that the Ministry are only going to give help towards non-parlour houses. That is a serious matter. When the scheme first came up, I hoped it was to build houses for the men who were living in inferior houses but could afford something better, and so that those below could move up and bring about an improved general standard, until everybody was living in a parlour house. If the Government say, "We will give you nothing unless you build non-parlour houses," that raises a serious question, and it should be fought out.

Painting and Architecture*

BY MR. WALTER BAYES, A.R.W.S.

MR. WALTER BAYES said he had not undertaken to talk about "Architecture and Painting," but about "Painting and Architecture," and this not from any desire to claim priority of importance to painting (though there might be two opinions as to which was the older art), but simply because as a layman it would hardly be discreet for him to say much about architecture in the presence of architects.

Painting, then, and architecture—as who should say China and Peru, so separate did the two arts seem from each other in modern practice. And yet it was not always so, and perhaps his terms of reference permitted, nay enjoined, a certain canvassing of the possibilities of a return to closer union. It would be nice to think that the mere presence of a painter on that platform speaking on such a subject implied a general desire on the part of architects for such a *rapprochement*. Only there was such a thing as giving a man rope enough to hang himself, and he was conscious in the past of having worried them so much on this topic that it was just conceivable that this was regarded as an opportunity for burying it and him once and for all.

The lecturer proceeded lightly to draw an analogy between the present position of the two arts and the old story of the Prodigal Son. The question was whether the returning prodigal could be made use of, or was there something inherent in the art of painting which was bound, sooner or later, to lead once more to its drifting away from architecture. From the first, he thought, the painter had been esteemed by the public and a little feared by the architect as a "window maker"—he had to teach mankind to see in terms of beauty, and his function was so important and his power in a simpler age so great that it might well have seemed to the naive minds of an earlier day miraculous. Morris gave a hint of that in his lines :—

" Men say a wizard to a Northern King
 At Christmas time such wondrous things did show
 That thro' one window men beheld the spring
 And thro' another saw the summer glow
 And thro' a third the fruited vines arow
 Whilst still unchanged and in its wonted way
 Piped the drear wind of that December day."

There was a time, and not so long ago, when if you wanted the illusion of a change of scene, if you wanted to be shown how anything was made, you had to go to an artist—there was no other way. Poor wizard—the kinema had robbed him of his magic carpet and surpassed his more popular tricks, yet there was still about

him this much of the magician—that he had something up his sleeve.

In considering the use of painting for decorative purposes we must maintain a rough distinction between the painting in flat pattern which subdivided a wall without imaginatively piercing it and this window making which was positively intended to lure the mind to wander through space, and thus lighten and offer an escape from the closed-in, box-like aspect of a room.

The one might be applied to almost the whole surface of an interior (as in the tombs of Ancient Egypt, or in certain early Italian interiors), the other was proper to panels—to certain portions of the wall which might be imagined away without that wall losing, to the eye at least, its stability—spaces which are like screens impervious to wind and rain, but transparent to the mind.

There was no hard line to be drawn between these two kinds of painting. If you filled a border with a Greek fret you had already a slight sense that the zig-zag line was in front of the background—that gave two planes.

An interlaced pattern with one strap in front of another strap which was itself in front of a background, gave three, and more complex interlacements gave any degree of realism you wanted.

Any degree you wanted—but the wise painter was always discreet. And just as it was difficult to think of pattern with no suggestion of relief, so there was no good "window making" which was not flat patterning of a more complex order—the "break through" into space proceeded in measured fashion, each step forward being consolidated by flanking movements ensuring the continuity of the wall, much as a general consolidates each advance by maintaining connection with his base.

How much in traditional painting, asked the lecturer, came really from this respect for the wall? Did we sufficiently realise the potency of the convention of perspective in this respect, a convention which imagined the rays of light from imaginary solids as, so to speak, trapped as they passed to the eye through the plane of the wall so that their solidity exists only by reference to that plane? Again, did we realise how the built-up painting of such a painter as Claude Lorraine had a similar function? We called it mere easel painting, and drew damaging comparisons between such a technique and such single-layer painting as fresco, which certainly belonged more to the wall in a material sense. Yet the painting in several layers might draw a positive advantage from that fact if each superimposed layer was designed so as to make a phrase reading laterally in the sense of the wall surface. We should beware also of assuming that a certain sustained artificiality—unreality

*A résumé of a Public Lecture given at the Institute on 8 March

PAINTING AND ARCHITECTURE

in Claude's landscapes—indicated topographical ignorance. It indicated rather an understanding of the fact that the more three-dimensional painting became, the greater was the need for fantasy—so that the solid should not be oppressively material.

If conducted in this spirit, he submitted that “window making” was not necessarily a vulgar art, though of the two kinds of painting between which he had discriminated, that was the one which interested simple folk who did not *know* that they were interested in pattern. He warned architects that such people were still less aware that architecture was anything but a very dull and highbrow business, and he submitted that they, the architects, would not wisely despise the aid of the painter as an intermediary between themselves, the exponents of a rather abstract art, and those who thought they were not interested in such things, and for whom a train of thought had to be created linking the episodes of everyday life with those fundamental laws of balance, of harmony, of proportion, which set the stars in their courses. He made an attempt to sketch the manner in which the mind of the man in the street might be led insensibly from a rather stupid anecdotal interest in the subject-matter of the painter to an appreciation of the relation between the design of the painting and that of the architecture to which it belongs, and thus to the architecture itself. From this possible utility he concluded that when he was designing places of public resort the architect would be wise to provide adequate and suitable panel space for the painter.

He pleaded also that the architect should cultivate a more generous recognition of the possibilities of a kind of painting interesting to the ordinary man in the street on the ground that the state of mind of the people frequenting a building was as much one of the conditions to which decoration should accommodate itself as was the climate. If painting were used in places of public resort he thought it quite wise, since the people that went there liked subject-matter of contemporary interest, to see paintings wherein something was going on—he thought it wise to give them that interesting subject-matter, that realistic presentation—or to seem so. He recalled the story of the painter who wanted to paint a sign of Red Lion when the innkeeper wanted a White Horse. “All right,” said the painter, finally, “I'll paint you your white horse, but mind, you mustn't be surprised to find it looking uncommonly like a red lion.” So let us give the unlettered public its realism, only they mustn't be surprised to find it looking uncommonly like fine abstract design. When you come to think of it, the best realistic painting in the past always

had done so. None of the arts tributary to architecture had the power of doing two things at the same time in the same degree as painting. He submitted that while in the days when buildings were made with stones the architect was naturally an engineer complicated with a sculptor, now, when they were made of steel and concrete, the sculptor might reasonably fall out and a painter take his place. The tendency of architecture was to become in a material sense less beautiful as it ceased to be built in stone. There was no reason why in a fantastic sense as a finely woven piece of rhetoric it should not be just as beautiful—perhaps in alliance with painting more subtle. One saw buildings nowadays in course of construction, very beautiful, intricate structures of scaffolding, piers, girders, etc., intricately wrought transparencies. Then, as they were finished, they tended to get “bunged up”; painting might restore something of that transparency and mystery to what, when made of concrete instead of stone, were “dead” walls.

The lecturer apologised if he might seem to be overstating what painting could do for architecture. He spoke of potentialities. “She is what she is,” said Shibli Bagarag of his ill-favoured bride. “But, no!” said the bride's mother, “she is what she will be.” It was impossible, however, to exaggerate what architecture could do for painting, the state of which he depicted as being indeed desperate, critics and dealers having induced every painter to pride himself on being utterly unlike anyone else, so that we all speak different idioms and there is no common endeavour. If architects were to use painters, self-interest would enable them to see the importance of being able to work harmoniously together on the same job.

They should not suppose this to be a small matter. We were suffering from a lop-sided culture in which visual thinking (by a conspiracy of inflated literary men) was regarded as no thinking at all, and the lack of a commercial basis was making the profession of painting an untenable profession. Now in the matter of visual culture, painting, by its elasticity and universality, fulfilled the function of a sort of gymnasium. His hearers might remember the saying that the Battle of Waterloo was won on the playing grounds of Eton. Well, painting had that kind of importance. Abolish it and you accept the atrophy of all one side of the human mind. The architect and his client had the opportunity of rescuing painting from its present unbridled individualism.

Then we might settle down to make of painting what it has in it to become, the greatest, the most supple, inflected language the world has ever seen.



THE TEMPLE OF THE SUN AT BAALBEC

Mr. Walcot's Restorations of Ancient Temples

BY WILLIAM HARVEY, OWEN JONES STUDENT, 1913; LATELY STUDENT OF THE BRITISH SCHOOL AT ATHENS

Mr. Walcot's reconstructions of ancient temples lift the spectator out of the dry rut of detailed archaeology into the realm of artistic imagination. The tourist placed before a maze of crumbling foundation walls and directed by the guide to behold the most remarkable of objects in the shape of some mutilated fragment of sculpture is in no mind to visualise the splendour of ancient architecture in any comprehensive form. Truthful Englishmen will sometimes confess to having felt more of the mighty power of Rome when walking by the wall at Verulam, some score of miles from their own capital city, than they were able to discover for themselves in all their foreign travels. The sun was too hot, the guides too voluble, and the beggar's attack so formidable as to drive all thought of architecture from their heads.

It is the business of the artist and the archaeologist to overcome these distractions, and no sign of them appears to mar the serenity of Mr. Walcot's exhibition of wonderful studies of a past time when temples now ruined formed part of a vital scheme of existence, focal points of interest for whole nations.

The pictures he has conjured up answer the question that all intelligent sightseers are bound to ask themselves: "What was it like in the old days?" In Mr. Walcot's visions the sunlight is there, the activity of the crowd, trees disappearing in the haze, feet obliterated in the sun-bleached dust.

The atmosphere of the South is there as well, and the colour that the old builders knew how to apply to set off their architecture in harmony with it. A sky of blue, a landscape, a golden smudge of bare earth and withered herbage, could not serve as the background for a sombre and neutral-tinted pile of building. Mr. Walcot as an artist expresses the archaeological fact that the ancient buildings were masses of colour, not subdued and washed-out colour, but colour capable of holding its own when placed in juxtaposition with red coral, jet or gold.

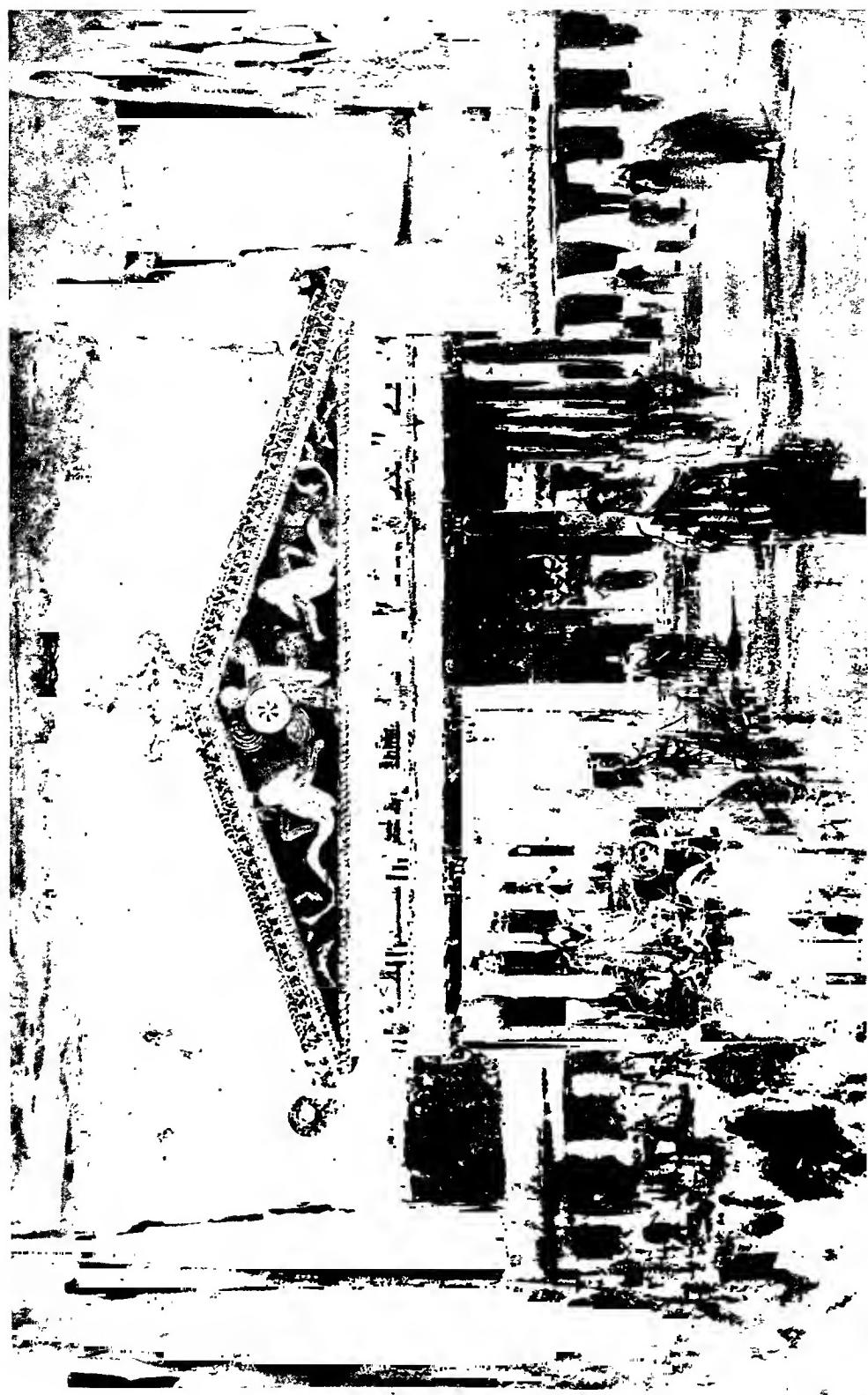
There is no need to look up the references, the accuracy of the ensemble is self-evident.

Wherever one is in a position to be an understanding critic Mr. Walcot's work fulfils the requirements, and it is only fair to take the unknown at the valuation of the known. The all-pervading dusty gold of his Luxor Pylon is justified by the memories of the remaining fragments within a day's excursion on donkey-back round about the village. The mountains, too, behind the temple of the sun at Baalbec are cold and hot at once in just the true Syrian fashion; and where the scenery is right and the building in harmony with it, the building must be true too. It must have looked just as it is drawn, a monstrous assertive bulk, oppressively magnificent in its scale and its profusion of sculpted decoration, fitly enshrining the idea of the oppressive sun-god in a sun-smitten land. And that is where Mr. Walcot



TEMPLE AT SELINUNTE IN SICILY

THE TEMPLE OF APOLLO AT THERMOS



MR. WALCOT'S RESTORATIONS OF ANCIENT TEMPLES

has played the magician for us in creating a harmony of force from the wreck of coarsely carved Late Roman details that survive on the site. Roman ruins have not the intrinsic beauty of Greek detail to make every square inch a delight in itself. To be intelligible a Roman building must be complete, and Baalbec—for all its massive stonework, unique for the grandeur of its individual masses—remains but as a medley of masonry where each gigantic fragment dwarfs the one adjoining it and forbids to the traveller any instant perception of the scheme.

The series of Roman studies, including the examples

all periods of Greek art, but it is quite another thing to have the rightness of this coloured detail triumphantly demonstrated to the most casual inspection.

The impressionist style of execution helps out the archæological statement. Not every detail is known, or can be, and it would have been a point of discretion to present the mixture of fact and fancy without over-emphasis of any single detail, even if Mr. Walcot's method as an artist had not lent itself to this wise generalisation in any event. We shall never know which details in each reconstruction belong exclusively to the artist's whim and which to the scientific labours of the



AN EGYPTIAN PALACE

executed in line as etchings as well as those in colour, possess this special value—that they portray the buildings complete, inhabitable and inhabited in a way that does not suggest itself with any clearness to the tourist hurriedly inspecting the dead relics of former greatness.

The Greek and Etruscan restorations interest from the point of view of the application of colour to every detail of the architecture. We have lived through a colourless, colour-hating period when the idea of pigment applied to Grecian sculpture and architecture seemed repulsive to the average Englishmen. The researches of archæologists have stocked our libraries and museums with evidences of coloured objects from

professors ; but then, we shall remain delightfully indifferent on the point. If a blue column stands in the picture where a white one stood in the year B.C. x , who knows whether it may not have been repainted blue in B.C. $x - 1$?

The exhibits gain immensely by being hung together as a collection. Wooden temples, stone temples, Egyptian, Etruscan and Greek, all forming variations on the same great theme of posts and beam arrangement. The textbooks and the textbook-fed pedants tend to insist upon too great and too stereotyped uniformity, whereas freedom and diversity are rightly shown in the different drawings.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The pediment of the Archaic Temple of Apollo at Thermos is shown with a painted tympanum advanced to the plane of the drip board with colour interest to supply the place of the shadow sacrificed to this arrangement.

The Etruscan Temple of Jupiter Capitolinus has no tympanum, the roof timbers of the cella showing through the open front.

The hanging slabs of terra-cotta decorating the eaves of these Etruscan temples are interesting in that they suggest a possible origin for forms cut in marble in other examples, for there can be little doubt that tiles and protective tilework plating to the timber roof gave the first hint for the otherwise unexplained forms of certain Greek mouldings, just as painted decoration preceded the sculpture of the classic eggs and darts, honeysuckles, frets and palmettes.

A painting in a different key from the rest, "The Acropolis, Athens, after the Roman Restoration," shows the ruin of Greek splendour. The bright pigments have peeled from off the temples, the marble has begun to spot with the rusty gold we now recognise as characteristic and the cavernous hollows of the metopes and intercolumns of the Parthenon suggest the emaciation of old age and pain. The sad grey purple of Hymettus is used as the basic colour for the picture.

Another study in grey is a present-day view of the Venetian Library, where the mature Renaissance of that building is blended with the Byzantinesque Gothic of the Palazzo Ducale in a sketch exhibiting a maximum of skill and a minimum of paint. Here, as in so many of these drawings, the atmosphere is indicated with uncanny exactness.

Review

WILLIAM MORRIS—AND AFTER. MODERN DECORATIVE ART IN ENGLAND : ITS DEVELOPMENT AND CHARACTERISTICS. By W. G. Paulson Townsend. Vol. I. *Woven and Painted Fabrics, Wall Papers, Lace and Embroidery.* [London : B. T. Batsford, Ltd. 25s.]

It is the author's intention to deal with the modern development—say during the last 25 or 30 years—of the whole field of decorative art, and the present volume, the first of a series of five, deals with Woven and Printed Fabrics, Wall Papers, Lace and Embroidery.

The book shows clearly that since the days immediately preceding the movement which commenced with William Morris, and was continued by Walter Crane, Lewis Day and others, marked progress and improvement in general have been made.

The work of the leading masters of decoration, and the outstanding tendencies in modern design, are well

illustrated in Mr. Townsend's book. Modern fabrics, for instance, show the use of strong and vivid colours, naturalistic flowers, contrasted stripes, the free introduction of bird forms, more than an inclination towards *chinoiserie*—as well as the use of geometric shapes. Many of us have, doubtless, noticed these points, though possibly we have not attached adequate importance to them.

Some of the more pronounced departures from traditional lines one may feel have little merit beyond that of novelty, though those of us who have not yet settled down into a comfortable old age cherish a kind of secret regard for anything which tends to shake the complacency of those who have done so, well knowing, of course, that our own will be similarly shaken in due course.

Before these words are printed Professor Rothenstein will doubtless have decided whether architecture is the mother of the arts. While the case is *sub judice* one ought not, perhaps, to point out that the appearance of the children does not adequately support the maternal relationship theory. But, whatever the decision of the Courts may be, it would seem clear that most of the things dealt with in Mr. Townsend's volume, and the volumes which are to follow, are used in some way or other in connection with architecture.

It may well be, therefore, that could we get a school of architecture in which all the various items which go to furnish, decorate and complete a building could be dealt with, the various craftsmen being trained side by side with professional students of architecture under a "unified command," we might see a development on clear and logical lines.

Or—to state the same thing in another way—a school of all the various crafts in which architecture is looked upon as the dominating influence.

But, putting these Utopian dreams on one side, if only for a moment, Mr. Townsend's book serves a very useful purpose, and it is to be hoped that its reception will be such as to justify the speedy publication of the further volumes.

As one expects from Messrs. Batsford, *Modern Decorative Art in England* is well printed and beautifully illustrated.

W. S. PURCHON [A.].

THE SKETCHES OF THE LATE SIR ERNEST GEORGE, R.A.

Mr. Charles H. Heathcote (Vice-President) has offered to defray the cost of the purchase for the R.I.B.A. Library of an album containing about 50 sketches by the late Sir Ernest George, R.A. These sketches have recently been exhibited at the Galleries of the Fine Art Society, Bond Street, W.1.

Correspondence

CODE OF ETHICS.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—At a recent meeting of the Council, and after very careful consideration, the following resolution was passed :—

"With a view to strengthening the powers of the Council in dealing with all breaches of professional ethics or etiquette, and in the interests generally of the profession, this Council is of opinion it is undesirable to formulate any code of ethics or etiquette."

A reference to Bye-law 23 will show that the Council has unlimited undefined power to deal with every kind of professional misconduct, and it was pointed out that you cannot increase that power by defining certain breaches. The result, however, might be to lessen the authority.

I gave an instance of an important action at the Law Courts where my clients had to refrain from calling evidence of unprofessional conduct, because the breach complained of was not included in our code : and it is practically impossible to provide for every contingency ; each case must be judged on its merits.

Other learned societies are quite as jealous concerning the proper behaviour of their members as we are ; and the following information will, I trust, interest your readers.

The Surveyors' Institution sends a note to all members when they are elected, stating they must not accept commissions, and generally that they must behave properly ; but the Secretary wrote me, "No general code of etiquette has been laid down by the Council of the Institution, nor do I think it likely that they will attempt so difficult and invidious a task." The membership of that Institution numbers over 5,700 men.

The Secretary of the Institution of Mining and Metallurgy wrote me as follows :—

"Neither the Institution of Mining and Metallurgy nor the Institution of Mining Engineers, which represent the two branches of the mining profession, has a written 'Code of Ethics.' The Councils of both Institutions (which are incorporated by royal charters) have full powers under their respective By-laws to deal with cases of alleged unprofessional conduct of members, and these powers are exercised when necessary.

"The question of adopting a definite 'Code of Ethics' for the profession has been raised at intervals during the past twenty-five years by members of the Institution of Mining and Metallurgy, which represents the mining of minerals other than coal, and hence its members are the more exposed to financial influences and temptations. On two occasions special committees were appointed to consider 'Memorials' on the question signed by numerous members, and several of the signatories served on the committees. In each case,

after exhaustive discussion, it was decided that no 'code' which could be drawn up could serve the purpose so well as the general powers possessed and exercised by the Council. Cases can only be dealt with upon their individual merits after careful investigation.

"Personally, I have always been strongly opposed to the adoption of any detailed code of conduct for members of the profession, which in my view would cast a wholly unmerited slur upon the great majority of them by implying that individually they needed to be told in detail how to distinguish between right and wrong."

The Institution of Mechanical Engineers has about 8,500 members. The Secretary wrote me :—"The Council have not published any reports with regard to professional conduct. . . . The Council consider all cases of misconduct on the part of members brought to their notice." He also referred to the Articles of Association, which are similar to our Bye-laws.

The Registrar of the Royal College of Physicians wrote me : "There is, as far as I am aware, no published code of medical etiquette. . . . I think I may say there is no published code of the kind to which you refer."

The Secretary of the Royal College of Surgeons wrote me : "You are right in thinking that there is no code of etiquette at this college. . . . It cannot, however, be said that there is any general code of etiquette for the medical profession, and it seems to me it would be unwise to draw up anything of the kind."

The Institute of Chartered Accountants has over 5,800 members, and the Secretary wrote me :—

"In reply to your letter of the 6th instant, this Institute has never had a code of etiquette. Suggestions of this kind have been considered from time to time, but one of the objections which is invariably raised is that it is impossible to foresee every kind of unprofessional act which might hereafter arise, and that when one does arise the member complained of will at once reply that nothing was said in the code about this particular action being undesirable."

The Secretary of the General Council of the Bar wrote me :—

"In reply to your letter of the 6th instant, which I should have answered before but for my absence from town, I agree with your view that the publication of a written code of professional etiquette is inadvisable. The practice of the General Council of the Bar is to give a ruling on the facts submitted to them in cases which arise from time to time, and a number of rulings on points of etiquette and practice have been published in the Annual Statements of the Council and elsewhere. But the Council do not express opinions on hypothetical cases, and to draw up a code of etiquette or a scheme of professional conduct as regulated by gentlemanly instincts seems to me impracticable."

The Law Society has over 9,400 members. The Secre-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

tary asked me to call, and he and the President of the Law Society kindly discussed the matter at great length. During the conversation the Secretary stated that the Law Society has no code, and finally the President stated that in his opinion it would be a dangerous thing for the Royal Institute of British Architects to publish any code.—Yours obediently,

SYDNEY PERKS [F.]

MEMBERSHIP OF ALLIED SOCIETIES.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Mr. W. J. Stenner states his Society includes as members 45 Fellows and Associates of the R.I.B.A. According to a list received from Conduit Street, dated 1 December 1922, the number was 38 : the total membership was stated to be 60, and we hear it has increased to 70. But I must remind Mr. Stenner that Licentiates are not Members of Institute, and our Associates as a rule are most emphatic on that point.—Yours faithfully,

SYDNEY PERKS [F.]

ENGLISH DECORATION AND FURNITURE OF THE LATER EIGHTEENTH CENTURY.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—With reference to your kind review of my book, I should like to say that the evidence for Adam's authorship of the drawing-room chimney-piece at Kedleston is conclusive. There is a design for it by Robert Adam (1760) in the Soane Museum (vol. 22), and it is stated by county historians to have been carved by Spang, which confirms the date, if that were necessary. There are chimney-pieces of similar character in early houses by Adam, and the date (1760) probably accounts for Mr. Sayer mistaking it for early eighteenth-century work. The illustration (Fig. 108) which, your reviewer writes, "has fake written all over it" is a genuine piece, showing signs of wear and tear, removed by a house-breaker from an old building.

The foreword is, of course, contributed by Professor Richardson, and not by Professor Atkinson.—Yours faithfully,

M. JOURDAIN.

The Reviewer writes :—

In reply to Miss Jourdain's letter. The Kedleston mantel is attributed to Robert Adam on the evidence of the drawing in the Soane Museum. Now, there are two other drawings of mantels in the collection which show work of the sixteenth and seventeenth centuries, and are obviously by the same hand, and these might be called Adam designs on the same principle. There appears to be no other documentary evidence, whilst the evidence of style and treatment is all in favour of an early eighteenth century date. The truth seems to be that Adam had to "bring in" existing work occasionally. The other mantel may very well have come out of an old house, as plenty of fakes are to be found in old houses, since people took to "restoring" them. The details do not agree in date, the capitals are clumsy, and the proportions wrong. I have to apologise for my slip in writing Atkinson for Richardson.

CHARLES E. SAYER.

Mr. Waterhouse and the Building Trade Crisis

The following letter from the President of the Institute was published in *The Times* on the 4 April, with the sub-headings "Architects Ready to Mediate," and "An Appeal to Good Sense."

To the Editor of "The Times."

SIR,—Architects, together with a large section of the public, are awaiting with the keenest anxiety the upshot of the crisis in the building trade. The sense that our anxiety for peace would perhaps not be regarded as wholly disinterested, together with a feeling that interference was hardly called for, has kept the Royal Institute of British Architects from any public expression on the matter.

But I feel that the moment has come when we architects can hardly remain silent spectators of a situation which threatens so deeply the welfare of thousands with whom our daily life is so closely and personally connected. It is our most earnest hope that the honest desire for settlement which we believe to exist upon both sides may develop, before the closing of the door, into some such agreement by compromise or concession as will liberate one of England's greatest industries and spare its members untold misery.

I feel sure that friends of mine in the two federations engaged are aware, without being told, that if sympathetic mediation by a member of my profession were thought likely to be of service, such assistance would be immediately forthcoming ; but apart from any such step, and, indeed, on grounds of personal fellow-feeling for those on both sides of this controversy, who stand to lose heavily by a hold-up of work, I feel that I am right in urging, with all the force of friendship, the supreme importance of coming to that understanding of which the latest information has given a most welcome hope. I know that I am speaking for many among my brother-architects if I venture to say to the disputants : "For your own sakes find some means of agreement, so that the industry may not be suspended ; and if it cannot be done for your own sakes, let it be done for England's. Both sides may have money to spend on a fight ; but the fight will cost more than money. It will mean a waste of labour and a waste of time—two things which England in her task of reconstruction cannot afford to lose."

The appeal, happily, is to men of sense ; that is why it is made with hope and with some knowledge that in both camps there are those to whom any such a call from outside is unnecessary. They will be the first to forgive this intrusion of friendly bystanders.—Yours faithfully,

PAUL WATERHOUSE,

President, Royal Institute of British Architects.

Housing Achievements, 1919 to 1922*

BY T. ALWYN LLOYD [F.], MEMBER OF THE TOWN PLANNING INSTITUTE.

Many may think that in speaking of housing "achievements" during recent years I am attempting a very delicate task. It may, indeed, have appeared at times as if the achievements were all of a negative character. At the outset such high hopes were formed, such eulogistic terms used by public men at the end of the Great War, that it almost seemed as if the social millennium were at our very doors and that the permanent betterment of the physical and mental condition of the people was to take immediate shape. Probably the inevitable disappointment which ensued was a direct result of the rash promises made by those in authority and of the well-nigh impossible task which they set their officials to perform. The spirit may indeed have been willing, but it would appear that flesh and blood were incapable of rising to the height of such a great opportunity.

Having said that by way of introduction, I want to try and summarise from an architect's point of view as accurately as may be what actual results were obtained by briefly surveying the field of housing operations during the last four years. Frequently in discussing these things with fellow-architects and with others connected with the building trade I have felt that insufficient attention has been paid to whatever positive achievements there are on the credit side of the transaction. Undue prominence has been given to the debit side, to the failures and disappointments. In our indignation at many things which have happened in connection with it, I hope we shall not be led to dismiss the subject of Government-assisted housing with a contemptuous shrug or a gesture of mere impatience, as we might well be prone to do on a casual acquaintance with it. While many recent happenings have been lamentable and the efforts put forward and the capital expended were disproportionate to the results obtained, we should not forget the unprecedented conditions ruling when the bulk of the houses were erected, nor the many great improvements in housing standards which have been effected in spite of these difficulties.

Criticism of the Government scheme by architects has mainly centred on the Ministry of Health, over the method they employed in cutting down and supervising the schemes, rather than on the Local Authorities and other agencies who initiated and carried them into effect. The financial arrangements between the Government, who found the greater part of the money, and the Councils, who nominally had the spending of it, being what they were, differences of opinion, and at times serious disagreement, were inevitable.

We may consider that the terms of this financial partnership, being radically unsound, in that whatever happened the Council's liability for loss was limited to the penny rate, were the root cause of the trouble which ensued. But in view of the very nature of that partnership it was essential that Government officials should be in ultimate control and that at every stage in the proceedings they

should check the doings of the Councils' architects and surveyors, irksome and disagreeable as such checks invariably are. Frequently it appeared as if the Ministry of Health were out to hamper all attempts by architects to do their own job !

The Government set an impossible task to the building trade, asking it in the years immediately following the great war upheaval to produce a volume of domestic building, in addition to the abnormal amount of commercial building in 1919, 1920 and early 1921, quite in excess of its capacity. Quite naturally, prices advanced and advanced, until in the summer of 1920 they had soared to unheard-of heights and the pre-war cottage of £250 was costing £900 to £1,000. It was obvious that matters could not go on in this way, and the Government had to cry a halt. Later, owing to the altered policy of the Ministry since that time, prices steadily declined, until we are now almost within sight of the cottage which can be built to yield a normal return on capital. Our £1,000 cottage of August, 1920, is now being built for about £400, and the smaller type for £350. If the Ministry, instead of lopping off chimney pots and coats of paint and cupboard hooks, had at an earlier stage seriously tackled at their root these questions of building costs and endeavoured to establish why they were so exorbitant, it would have been better for all concerned. You are all acquainted with the black side of the picture, how in the prevailing uncertainties and scarcity of both labour and materials profits and the price of money increased, wages increased, but output decreased ; rings and combines in building materials flourished as never before. Every one of us has had some personal experience of the absurdities and the fundamental unsoundness of building prices during the first few years after the war. It is easy now to be wise after the event, but I am sure those of us who had any connection with house building in 1919-21 will not minimise the serious difficulties with which all were then faced. Of one thing I am certain—to build houses even at such high prices was better than a policy of entire *laissez-faire*, which in the absence of new houses would certainly have resulted in serious consequences to the nation. Private enterprise was out of the field in the circumstances resulting from the war, apart from the subsidised scheme. Even before the war there had been a slowing down process in building, and the consequent shortage of houses was appalling. Even now, with prices down to nearly one-third of what they were at the peak, pure and unadulterated private enterprise, so far as the building of working-class houses for letting is concerned, is not in a position to function. This point cannot be over-emphasised. Speculative builders and private individuals are now prepared to erect houses of the villa type for sale, or in certain cases for rent when high rents can be obtained, but this class of building does not touch the real housing problem, which is the production of large numbers of cottages to let at weekly rents of not more than 10s. per week, exclusive of rates.

* A paper read before the Liverpool Architectural Society on 9 January 1923.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Therefore, our first achievement is the fact that some 200,000 working-class houses have been built in 1919-22. The price paid for them is colossal, but the price which we should have had to pay in the absence of these houses in industrial unrest, in sheer human hopelessness and misery, would, in my humble opinion, have been infinitely greater.

Shall we for a moment consider the pre-war standards of cottages—mostly built by private enterprise—with which, strictly speaking, the cottages recently built should be compared? I have found frequently that critics of the new houses—and they are to be met with at every turn—are prone to compare them not with pre-war working-class dwellings, what one might call the “common or garden-less” type, but with town villas, country cottages, and bungalows built for middle-class folk. Now, the older type of workman’s dwelling or “housing of the working classes,” as it was referred to in official publications, was invariably built in rows. I am not attacking private enterprise as such nor blaming individuals. The system was at fault, and we were all to blame for lack of interest and imagination in these things. The number of dwellings to the acre depended on how many could be packed on to comply with by-law requirements, nature of the site and other local conditions, varying from 25 to 40 per acre. They were built facing uniform by-law streets, “paved, curbed and channelled,” and the carriageway “falling from the crown to channel,” “the footway sloping towards the outer edge,” and so on, in the hackneyed words of the by-laws. Sometimes there were forecourts, but more often the houses gave directly on to the street. The sites were often unsuitable, little attention being paid to amenity; houses, works and shops were built indiscriminately in the same district. There was little attempt at estate planning and no relation but what chance dictated between one estate and another; 40-feet roads might end in a blind alley or they might have to take the main traffic of the town. An aerial view of an industrial town or a working-class suburb built in the thirty years before the war would have given one an impression of drab dullness and of indefinable chaos in development. Of gardens in the real sense there were hardly any. The by-laws did certainly insist on “a space at the rear,” but surrounded as this was by dark boundary walls and back projections, there was neither adequate room nor any inducement to keep it tidy and pleasant. Consequently these back yards were used as receptacles for rubbish, relieved by dog kennels and poultry pens or patches of anaemic-looking grass or shrubs. I need not weary you with the details of the internal planning of the older cottage, with its narrow frontage, the principal room usually giving on to an area formed by back projections, its ill-lighted lobby and stuffy food cupboard. At its best the town cottage was dull and uninteresting. At its worst it quickly degenerated into slum conditions.

The rural cottage, although placed in much superior surroundings, was in itself probably worse, lacking as it frequently did the elements of sanitation and comfort. Owing to the low rents obtainable, there had been a gradually increasing shortage of country cottages for many years before the war.

Compared with conditions such as I have described, I think one is quite entitled to claim that the 200,000 or so cottages

built under the Government scheme are much superior. Let me attempt to summarise their improved standards.

SITES.—First of all, as regards sites, I think the Government may take full credit for the admirable sites which were secured for the new houses. One has heard little or no criticism of this side of the Ministry’s activities. In many cases, local authorities were able to secure, with the Ministry’s help, the best available building sites in the area, and secure them at a reasonable price. The Ministry made use of the Government Valuation Department, which had been set up for a different purpose some years before. The experience they had gained of site values and of practical negotiation with landowners and agents enabled these valuers to act on behalf of the local authorities with satisfactory results. I am informed that the average price paid for housing sites over the whole country was £190 per acre, the average apart from boroughs being £160. This is our second achievement. Frequently opportunity was taken to acquire additional land for open spaces or other public purposes, and I think the reasonable spirit shown by landowners in connection with the disposal of these housing sites does them honour.

TOWN-PLANNING.—While criticism can be levelled both at the Ministry and the Councils in that town and regional planning, apart from mere site-planning, was not given the prominence that it deserved, doubtless owing to the fact that development was hurried, there has been a considerable amount of useful district planning carried out incidental to site-planning, which would not otherwise have come into being. By this, I mean road widening and improvements, constructions of portions of new “through” roads and the separating of housing sites from industries. If these good openings are followed up and extended as portions of town-planning schemes under the Act, they will be valuable public improvements. Personally, I would wish that all housing sites had been scheduled as town-planning schemes, which would have safeguarded them and the adjacent land more definitely. There was too much building done on existing roads, thus isolating the back land and spreading out the housing schemes in a manner that was not economical as regards general convenience and such matters as service mains. Another shortcoming was the number of separate sites which had to be selected in order to comply with parochial considerations and local expediency, where a broader outlook would have resulted in the grouping of sites at convenient centres, concentrating larger number of houses on one important site, which would have justified the provision of communal services, schools and shops there.

SITE-PLANNING.—Marked improvements can be recorded in this connection also, and when one compares the after-war standard of 10 or 12 houses to the acre with the pre-war standard of 25 or 30, it will be realised what great strides have been made. One reason which enabled this to be done was that land was acquired in bulk at a much cheaper rate than had previously prevailed when land for cottages was acquired in small lots, not at so much per acre, but at so much per foot frontage. The larger number of houses per acre and the more expensive make-up of by-law streets enabled owners to procure a higher price per plot than could be justified on the newer method. Spreading out houses more generously on the ground

HOUSING ACHIEVEMENTS

obviously allows additional space between the houses and around them, so the new cottages have good gardens attached to them. They are set back 15 to 20 feet from the front fence, and built in pairs or blocks of four to six, instead of in long rows. Recently there has been a tendency for the Ministry to lower these standards. The site-planning has also provided for some amount of open space on each site in the form of greens, recreation grounds and allotments. Trees and hedges have been preserved, and the finished housing schemes have retained something of the natural attraction of their sites, instead of being consigned to a common uniformity.

The lay-out of the housing schemes was with few exceptions on modern lines, the roads being carefully considered in relation both to ground levels and to their future use. Instead of the roads being of uniform width, 36 to 40 feet, as was the universal practice until recently, they were varied in width and construction, according to whether they were to take heavy traffic or light, whether they would give access to a considerable number of houses or to a few groups in by-roads and cul-de-sacs. The Ministry permitted local by-laws to be over-ridden when their officials had approved the housing scheme. Here, I think, it might be stated that they went rather too far in the direction of narrow roads. While a carriage-way 24 feet wide is obviously quite unnecessary for a cul-de-sac, a width of 8 feet, which the Ministry frequently advocated, is too narrow. Still, apart from minor qualifications of this kind, I think it can certainly be said that the lay-out plans of the housing schemes, taken as a whole, are much to be commended. This is our third achievement. In fairness to the Ministry, we can recognise in passing that their architects often succeeded in pulling together plans submitted by inexperienced Council officials, which would otherwise have been both extravagant and antiquated. The chief point that strikes one in looking over the housing sites planned by architects as distinct from the local surveyors is the interest which they have succeeded in imparting to the lay-out, the number of by-roads, quadrangles and other groupings which distinguish successful modern site-planning from the old careless pattern.

COTTAGE PLANNING.—I have already referred to some of the defects in the conventional working-class home. If we sought to find a reason for this, I think we should admit that these defects were chiefly the result of lack of thought and inattention to detail on the part of the builder or owner. It was so much easier to run up rows of stereotyped cottages than to consider them individually, in relation to site, aspect, family life, and so on. The fourth main achievement of after-war housing policy is that there has been imparted into the design and erection of cottages for humble folk some such element of care and forethought as is normally given to the design of more important buildings. I know that many housing schemes in the rush and worry of two years ago had far less time spent on them than we should have wished, but this can be said: for the first time in history the study of the ordinary cottage dwelling as a unit of building worthy of the architect's expert attention became officially recognised and adopted.

The chief improvement in internal planning is the wider frontage. Whereas previously each cottage was

built as narrow as 12 to 15 feet, frontages of the smallest types are now not less than 18 feet, and 25 feet frontages and more are usual. The provision of light and air to every room and passage is considered essential; back projections, dark passages, unventilated larders and other such inconveniences are now avoided. Each house is provided with a bath, invariably in a separate room either downstairs or up. When one realises what a small percentage of cottages in industrial districts were previously provided with bathrooms, or even with baths at all, the change is remarkable. The majority of the new cottages have three bedrooms, only a very small number of two-bedroom cottages having been sanctioned. I suppose some 40 per cent. of the total number erected have parlours, and, whatever we may say against the parlour, it does represent in the working-class home a certain standard of comfort and amenity which cannot be despised. Consider also the improvement in sanitary arrangements; the w.c., placed either in the house or in a space opening off the back porch under cover, and compare this with the w.c. in an outbuilding, detached from the house, which was so often met with.

CONSTRUCTION.—There has been frequent reference, not only by the general public, but also by those with technical knowledge, to the faulty construction and fitting up of some of the new cottages. With some of this criticism I am quite in agreement. The Ministry, in their efforts still further to cut down costs, have overdone their "cheese-paring." The substitution of cheap stains for oil paint, building 9-inch external walls without rough-cast, cheapening roof construction, and similar savings have tended to reduce standards below the wise level, but, always bearing in mind the comparison with working-class houses built before the war, I think there is no reason to feel much uneasiness. The structural parts—foundations, walls, floors and so on—are usually of sound construction; the finishings and fitting up of the houses being too often on the cheap side. As against this, it is doubtless a fact that the porcelain-enamelled baths, lavatory basins, modern sanitary appliances, glazed sinks and portable boilers were of a better standard than the tenants had previously experienced. The mere provision of them in the smallest cottages materially assisted in raising their general standard.

As to materials, my own experience leads me to believe that alternative building methods and experimental materials have not fully justified themselves. At a time when bricks were scarce or abnormally expensive there may have been good reasons for using concrete blocks and other walling substitutes. To-day bricks and mortar undoubtedly hold the field; even at the peak of prices the general rule was that the well-tried, traditional methods of carcase-building were best. I do not mean to imply by this that as architects we should not be willing at any time to consider alternative building methods and improvements. Modern cottage building is by no means either an exact science or so perfectly adjusted as to be incapable of improvement. The exact reverse is the case, and we cannot afford to ignore the consideration of any expedient, however impossible it may appear at first blush. Because they are, by training and tradition, conservative in the right sense, architects are often accused of being obstinate and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

old-fashioned when they do not accept at their face value the nostrums and "stunts" of patentees who loudly proclaim that theirs is *the* solution of the problem of cheap building. Bearing in mind the practical shortcomings of these solutions compared with those materials which have stood the test of time, we can still afford to be philosophically critical!

COTTAGE ARCHITECTURE.—After-war housing schemes have revealed very considerable advances in the matter of design and simple architectural character. If one looks about, one feels that the average design is at any rate quiet and inoffensive. In the case of the duller designs the very stringency of the public purse has prevented the worst abuses of ornamentation and the bad taste which might otherwise have presented themselves. The average "council house," while not perhaps coming within the category of good design, is seldom offensive, with its plain brick walling, unbroken eaves, and plain hipped roof. The Ministry type plans have done that much for the country! Where housing schemes have been carried out by architects who knew their job, and there are hundreds of such scattered about the country, the resulting designs have been very good. I was looking through a special issue of the *Architects' Journal* a few days ago containing plates and photographs of a representative collection of recent housing schemes done by architects, and any impartial examination would certainly pronounce them to be (with two exceptions to which modesty forbids me to allude!) of a high order as regards character, suitability of materials, and simple dignity. They are a notable advance on the nineteenth century brick boxes and slate lids; there is a pleasing note of Georgian or Early Victorian distinction in the best of the urban schemes, emphasised by knowledge of detail in the proportions of windows, doors and eaves projection, which just gives the right atmosphere. Many of the rural schemes, on the other hand (sometimes even carried out in local stone!), are equally pleasing in their Jacobean or "Cotswold" type of design. Such examples as these in town or country do not fail to give satisfaction to the eye of the inhabitant and of the passer-by to-day. Further, they will demonstrate to later generations that in spite of the turbulent times and the political vicissitudes through which housing immediately following the Great War had to pass, the building of these homes of the people (future historians will doubtless note that the latter were usually referred to in public speech as "heroes") was no mean achievement, but one of which the nation may be justly proud.

In conclusion, I want to refer for a moment to the other agency selected by the Government for building by means of State aid—what are known as Public Utility Societies. While the number of houses recently built by them is relatively small, they have to their credit a good standard of design and construction. They were not hampered so much by the Ministry probably because the societies had to take a larger share of financial risk than the local authorities. These societies are of a co-operative nature, either formed by large industrial undertakings or by groups of people able to put up a proportion of the capital cost and desiring to start by common effort a garden village. Not only the individual houses, but the communal buildings, institutes, schools and stores are probably above the average housing scheme in scope and achievement.

These societies have built at Welwyn Garden City, Guildford, Swanpool (Lincoln), Margam, Shrewsbury, Bournville, Cardiff, Barry and other parts.

While it has not been my object to show that the late Government housing scheme was an unqualified success (no one with any connection with it would venture to do so), I hope I have succeeded in proving that there was an important and vital side of it which should appeal to architects as probably the chief contribution of the present century towards the betterment of the external conditions of a great body of our population.

THE ARCHITECTURE CLUB DINNER AT GROSVENOR HOUSE.

By OSWALD P. MILNE [F.]

The Third Quarterly Dinner of the Architecture Club took place on 22 March. A feature of this dinner was that it was held in Grosvenor House by kind permission of the Duke of Westminster, and so took place amid the very successful exhibition that the club had organised.

The company numbered some 150 members and their guests. Mr. J. C. Squire took the chair, and Sir Reginald Blomfield had been asked as the guest of the club. Sir Chartres Biron, proposing Architecture coupled with the name of Sir Reginald Blomfield, said that the architecture of London had been a series of lost opportunities. London might have been rebuilt on the fine plan made by Sir Christopher Wren. What an opportunity was lost when the south side of the somewhat squalid Strand was built up, instead of throwing it open with a magnificent view over the river. He hoped that the problem of Charing Cross Bridge would be solved more happily, and if bishops could pull down churches, he saw no reason why railway companies could not pull down bridges. When one thought of architecture, one naturally thought of the name of Sir Reginald Blomfield.

Sir Reginald Blomfield, who responded, said though he had enjoyed the club's hospitality he wanted to point out to them the danger of their course. He proceeded with some genial criticism. The Press, he said, was a dangerous ally, and might, as likely as not, say the wrong thing.

Mr. H. A. L. Fisher proposed the toast of the club. He said that although there was no doubt that the level of architectural design had improved in the last twenty years, nevertheless he thought London was not such an attractive town to-day as it was when he was a boy. That architects seemed to have failed to impress any fine level of architectural taste on the public. He thought the club might do a useful work in this direction.

Sir Lawrence Weaver, who replied, said that the club's main aim was to encourage good architecture wherever it found it—that the walls of the exhibition, of which they were frankly proud, showed how catholic was their taste.

Mr. J. C. Squire made a statement as to the success of the exhibition, paying a tribute to the generosity of the Duke of Westminster in lending his house, which had made it possible for them to meet under such pleasant circumstances, and said that Mr. Detmar Blow and the estate staff had acted as though they felt they could not do too much to help the success of the enterprise. The company subsequently dispersed to examine the exhibits.

ALLIED SOCIETIES

Allied Societies

MANCHESTER SOCIETY OF ARCHITECTS AND THE THREATENED BUILDING STOPPAGE.

The Manchester Society of Architects has sent the following letter to the Ministry of Labour, the Employers' Federation, and the Building Trades Operatives' Federation with respect to the threatened building stoppage :—

29 March 1923.

DEAR SIR,—The Council of the Manchester Society of Architects, whilst feeling that the questions involved can best be settled by the employers and operatives themselves, wish to offer their services if in any way they could be of use in preventing a stoppage of the trade, which would be contrary to the interests of the public and the two parties immediately concerned.

The Council is convinced that the present cost of building and the uncertainty of conditions prevailing prevent a large volume of work being put in hand, and that much more employment would ensue to the trade if the cost of building could be reduced. The Council urges that the dispute should be settled by further immediate conference so that a strike or lock-out may be avoided.—Yours faithfully,

FRANCIS JONES,

President of the Manchester Society of Architects.

W. S. BEAUMONT,

Hon. Secretary.

LEEDS AND WEST YORKSHIRE ARCHI- TECTURAL SOCIETY.

PRESENTATION TO MR. W. H. THORP [F.]

At the Annual General Meeting of the Society, held at the Leeds School of Art, on Friday, the 6th inst., the following officers were elected for the forthcoming Session : President, Mr. Eric Morley [F.] ; Vice-Presidents, Mr. W. Alban Jones and Mr. G. H. Foggitt [A.] ; Treasurer, Mr. W. Whitehead [A.] ; Librarian, Mr. J. Addison [A.] ; and the Secretary, Mr. F. L. Charlton [A.]. The meeting was made the occasion for the presentation to Mr. William Henry Thorp [F.], the well-known Leeds architect, on his retirement from practice.

The President, Mr. Morley, in presenting to Mr. Thorp an illuminated address and a cheque, spoke highly of his work as an architect, and of his efforts for the Society, the profession generally, and his encouragement of young students. He proposed the institution of a new class of "Life Members," to which Mr. Thorp should be the first to be elected in recognition of his valuable public services. Mr. T. Butler Wilson [F.], in supporting the motion, added his testimony to Mr. Thorp's work as an architect, and his integrity and uprightness as a man. One of the original founders of the Society, 47 years ago, Mr. Thorp has been in turn its Secretary (a post which he held for seven years), Vice-President, and has twice been its President. He has also been a member of Council of the R.I.B.A. Himself one of the first to take the old voluntary examination of the Institute for its Associateship, Mr. Thorp has always been a keen worker in the progress of

education, being Chairman of the Leeds School of Art Committee, and a member of the Art Gallery Sub-Committee, and of the Leeds Corporation Library Committee. The architect of numerous buildings in Yorkshire, his work in Leeds is represented by the Fine Arts Gallery, the School of Medicine and the Y.M.C.A. building in Albion Place. A scholar and critic, no less than an architect, he is the author of several works on art : *An Architect's Sketch Book*, *John N. Rhodes—A Yorkshire Painter*, *Villas and Gardens of Italy*, and an *Old Court Quarter of Paris*. Mr. Thorp will shortly leave Leeds to reside at Clifton, Bristol.

RE "WHO'S WHO IN ARCHITECTURE, 1923."

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—From the heavy returns of completed forms which have been received for this book, it is evident that architects generally realise the great advantages that will be gained by its production, and the assistance which such a work of reference and professional information must render.

Its importance to the lay public and the lay Press hardly needs emphasising, but, as editor of the work, I should be grateful if I might draw the attention of your readers to the fact that if anyone is omitted from it through neglecting to send in his form, the fault must not be visited upon me.

The active co-operation extended to the publication by your Council, in conjunction with the publicity which it and other professional bodies have sanctioned, must of necessity complete the effort to obtain information, as well as to acquaint the profession with what is required for its compilation.

I am anxious to get this book published at as early a date as possible, and if any of your readers have not received forms, or have mislaid them, I shall be happy to send fresh ones by return of post to all who apply for them.—Yours faithfully,

F. CHATTERTON, F.R.I.B.A.

Editor, *Who's Who in Architecture*.

REINSTATEMENT.

The following were reinstated : As Associate, C. R. Winter ; as Licentiates, D. Hoets, F. Howarth, and J. R. Musto.

RETIRED FELLOWSHIP.

Under the provision of Bye-law 15, Mr. Alexander Ross, LL.D., and Mr. W. H. Thorp have been transferred to the class of Retired Fellows.

Mr. W. G. Newton has changed the title of the Sessional Paper which he is reading at the Institute on 23 April from "The Literature of Architecture" to "The Theory of Architecture."

Mr. W. Hanneford Smith, a director of Messrs. B. T. Batsford, Ltd., the well-known architectural publishers, has recently been elected a Fellow of the Royal Society of Edinburgh.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

NATIONAL HOUSING POLICY.

The Council of the Royal Institute of British Architects recently submitted to the Ministry of Health the following recommendations as to the principles which, in their opinion, should govern future Housing Policy in Great Britain :—

1. The principle of the Small Dwellings Acquisition Act should be extended by means of an Act with some such title as "The Small Dwellings Erection Act," whereby Local Authorities should be empowered, with the aid of the Public Works Loan Commissioners, to advance money on mortgage to any approved person proposing to erect a small dwelling for personal occupation to approved plans and estimate cost, such advance being made in periodic amounts as the erection of the building proceeds, up to a maximum of 85 per cent. of the market value of the property, or the cost, whichever is the lower, and to be paid off with interest by instalments spread over a period of thirty years, special arrangements being made for the easy transference of the legal interest in the property.

2. Where the Local Authority or approved Public Utility Society owns the land the Local Authority should be authorised to advance 85 per cent. of the market value of the property, or the cost, whichever is the lower, to any approved person, firm, or Public Utility Society undertaking the erection of one or more suitable dwelling houses, on similar terms to those outlined in paragraph 1 above, except that repayment with interest should be spread over a period of forty years, the Local Authority to have power to acquire land for this purpose.

3. Local Authorities or Public Utility Societies erecting houses should receive from the State, as a temporary expedient only during the continuation of the Rent Restriction Act, annual block grants of an agreed sum per house, differentiated in respect of rural and urban schemes and exceptional circumstances and applied to houses of approved accommodation built on estates laid out on town-planning lines.

4. With a view to assisting the revival of house-building by private enterprise, the Local Authorities should be empowered to use the annual block grant for the purpose of reducing or remitting the ground rent of land leased to private builders, instead of or in addition to employing the grant itself for building purposes.

5. As an alternative to the annual block grant system outlined in paragraph 3, the Ministry of Health should consider the grant of cheap loans to Local Authorities.

6. In cases where grants of public money are made it is of vital importance that a high standard of lay-out and accommodation be maintained.

On 27 March a deputation, consisting of Professor S. D. Adshead (Professor of Town Planning in London University), Mr. H. V. Lanchester (President of the Town Planning Institute), and four other members of the R.I.B.A., was received by the Permanent Secretary of the Ministry of Health on behalf of the Minister, and the recommendations detailed above were fully discussed.

Notices

THE TWELFTH GENERAL MEETING.

The Twelfth General Meeting (Ordinary) of the Session 1922-1923 will be held on Monday, 23 April 1923, at 8 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held on 9 April 1923 ; formally to admit members attending for the first time since their election.

Mr. William G. Newton, M.C., M.A. Oxon. [A.], to read a Paper on "Theories Classical and Romantic."

SPECIAL GENERAL MEETING.

A Special General Meeting will be held on Monday, 30 April, 1923, for the following purposes :—

To read the Minutes of the Special General Meeting held on Monday 5 March 1923 ; to consider the proposals of the Council for the revision of the Charter and Bye-Laws ; to consider proposals for the adoption of an academic dress for members and licentiates of the Royal Institute of British Architects.

The proposals for the adoption of an academic dress are contained in the illustrated supplement issued with this number of the JOURNAL.

The proposals for the revision of the Charter and Bye-Laws are contained in the following report of the Charter and Bye-Laws Committee, which has been approved by the Council :—

REPORT OF THE CHARTER AND BYE-LAWS COMMITTEE.

GENTLEMEN,—We have the honour to report upon the reference to us of 3 July last "to consider the revision of the Charter and Bye-Laws."

We inserted a notice in the JOURNAL asking for suggestions from Members, we communicated with the Standing Committees, the Board of Agricultural Education, and our Allied Societies, we have met on several occasions and have received many excellent suggestions.

We do not attempt to make any proposals in the form of exact alterations or amendments, but only in general terms, and if approved by the General Body of Members the clauses would be properly worded by Solicitors and submitted to the Privy Council. We are advised that a Supplemental Charter should be applied for.

The idea of this report is to make suggestions which we trust are, in principle, non-contentious ; it would be impossible to deal with every suggestion we have received at one General Meeting, and we are considering various proposals made by the Allied Societies, etc., and negotiations may take some little time. The work of the Institute's Solicitors will be lengthy and complicated, and we make the following proposals with a view to their being submitted to the General Body at an early date, so that the drafting of the proposed Charter and the revisions to Bye-Laws might be commenced without further delay.

With regard to both Charter and Bye-Laws, we suggest as follows :—

1. In future no change to be made in either Charter or Bye-Laws unless carried by a vote with a two-thirds majority at the first and also at the confirming meeting ; for Charter matters the quorum to be 60, and for Bye-Law matters the quorum to be 40 ; a bare majority of

NOTICES

those present at the meeting to have power to request the Council to take a poll of all the members in England, Scotland and Wales, and the result of the poll to be binding on the Institute ; Associates to have the same voting powers as Fellows, both as regards Charter and Bye-Law matters.

2. The Institute to have power to hold property of an unlimited value, or if a limit should be necessary, then the highest figure obtainable should be inserted in our Charter.

3. Ladies are at present eligible for all grades of corporate membership. If this is not already clear in the existing Charters, it should be clearly expressed.

4. Provision to be made for the new class named Subscribers (non-professional) ; the subscription to be £1 1s. per annum ; no affix to be used by the class referred to, who would be elected by the Council and remain as Subscribers at the Council's pleasure ; Subscribers to be entitled to attend General Meetings but not to vote, use the Library, and receive the Annual Report, but not the JOURNAL ; other terms to be settled by the Solicitors ; this proposal being in accordance with the resolution of the General Body (see JOURNAL (R.I.B.A.) of 5 March 1921). Ladies to be eligible for election to this class.

5. The definition of a Fellow (Charter 1887, Clause 3) to be enlarged so as to allow the admission of men who are qualified to the satisfaction of the Council, as follows :

(a) Associates in a position of responsibility for the design of architectural work, but not being in private practice.

(b) Licentiates over 60 years of age and approved by the Council for nomination.

6. A new non-corporate class of Students to be formed, to consist of those who have passed or received exemption from the Intermediate Examination. The subscription to be 10s. 6d. per annum, or £1 1s. per annum if the JOURNAL be supplied. Students to be entitled to attend General Meetings but not to vote, and to use the Library.

7 (A) Any Art or Craft Society may be, at the discretion of the Council, admitted to association, subject to such regulations, limitations and subscriptions to the Institute as may be from time to time prescribed by the Council of the Royal Institute. The members of such societies to have an annual notice of meetings of the R.I.B.A. and to be allowed to attend General Meetings but not to vote, and take part in the discussions, but this privilege is not to apply to any meeting when the business of the R.I.B.A. is discussed, except by permission of the President of the R.I.B.A. The R.I.B.A. may from time to time hold exhibitions of the Arts and Crafts in connection with these Societies, the conditions and terms being settled by the Council of the R.I.B.A. Bye-Laws 79 and 80 to apply. No member of such Arts and Crafts Society to use any affix referring to the R.I.B.A. unless already a member thereof.

7. Power to be given to admit as Hon. Associates any people who, by reason of their eminence or interest in architecture, the Council consider eligible for that honour.

8. With regard to Clause 29 (Charter of 1887), it should be made clear that Hon. Associates should have no power to vote on Charter or Bye-law matters.

9. With regard to Clause 35 and elsewhere the Solicitors to decide if any alteration be necessary with regard to Ireland.

Charter of 1909, Clause 2.—The word " eminent " to be inserted before the word " architect " in line 11.

The following suggestions are made with regard to Bye-laws :—One form of spelling should be adopted.

Bye-law No. 3.—We are of opinion that Associates elected after this date should, after a period of not less than seven years' private practice, proceed, if eligible, and subject to the approval of the Council, to nomination for the Fellowship after reaching the age of 50, or if they prefer to remain Associates, their subscription should be increased to that of the Fellows, provided such Associates be in private practice.

Bye-law No. 7.—We are of opinion that the Licentiate Class should not be re-opened.

Bye-law 12.—The second paragraph to be amended so as to provide for the election of such candidates by a four-fifths majority of those present and voting.

Bye-law No. 23.—We are of opinion that this Bye-law should be altered to include offences not technically felonies ; this matter to be settled by the Solicitors.

Bye-law No. 24 deals with the charges against Members. We are of opinion this should be altered so that the conditions under which a charge can be made should be as wide as possible, the Council should have power to initiate or investigate a charge without previous receipt of a written statement from a Member, the time limit for suspension should be omitted, and that the question of the publication of a suspension should be referred to Solicitors with a request that they should endeavour to find words which would enable the Council to make such publication without danger of an action for libel.

Bye-law No. 29.—We are of opinion that there should be one Hon. Secretary of the Institute, although Clause 11 of the Charter of 1887 provides for " one or more Honorary Secretaries."

Bye-law No. 32.—We are of opinion a list of attendances of members of the Council and Standing Committees should be sent to Members with the Nomination Lists for the annual election, any special circumstances which may have prevented a Member from attending to be noted at the request of the Member in question.

Bye-law No. 33.—We suggest that Bye-law 33 should be omitted and the following by-law substituted :—

" No ordinary Member of Council shall be eligible for election for more than six consecutive years in that class. No Associate Member of Council shall be eligible for election for more than six consecutive years in that class."

Bye-law No. 35.—We suggest that the Extraordinary Meeting must be called within seven days.

Bye-law No. 37.—After " any notice " add the words " or other document."

Bye-law No. 38.—The President has power " to issue any notice he may think fit " and at present he must report his action " at the next meeting " of the Council : that might be impossible, and we suggest the omission of the words " at the next meeting " and the clause would end " provided that he report his action to the Council."

Bye-law No. 49.—We suggest this should read " There shall be Standing Committees for the promotion of . . . profession of Architecture and they shall be appointed annually."

Bye-law No. 51.—The third line reads " branches of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Architecture with which they are respectively entrusted," and we suggest it should read " branches of Architecture for which they are respectively appointed."

Bye-law No. 54.—We are of opinion that it should be made clear that a Standing Committee may initiate action upon matters germane to their own functions ; this not to mean taking any public action, but we are of opinion that in cases of emergency, with the sanction of the President or, in his absence, of the Officers of the Council, Standing Committees should have power to take public action.

Bye-law No. 60 deals with business meetings, and we suggest adding at the end of the clause words to the effect that " the Council may at any time have power to call a Special Business Meeting for any specific purpose, and they shall at any time during the Session be bound to do so on the written requisition of fifteen subscribing Members which shall specify the nature of the business to be transacted, and no other business not specified on the agenda paper shall be discussed at such meeting. A special Business Meeting shall be held within three weeks after the delivery of such requisition to the Secretary, and at least seven days' previous notice thereof shall be sent to every Member entitled to be present. The notice shall state the business to be discussed." With regard to the quorum, it must be " Members," no distinction between Fellows and Associates.

In line 5 it is stated that " any question relating to the property or the management of the Royal Institute or to any professional question may be discussed " ; this should be enlarged to include any questions as to Charter or Bye-laws, and every domestic matter concerning the Institute.

It will be noticed that matter from Clause 64 has been added to Clause No. 60 ; add at the end of Clause 60 " Subject to the discretion of the Chairman, every speech delivered at any Business Meeting shall be published in the JOURNAL at the earliest possible date after the meeting.

Bye-law No. 64.—Insert " any " for " a " in the second line, and, after " specific purpose " insert " or to discuss any questions relating to the property or management of the Royal Institute or any professional question, " etc., etc., all as suggested by Bye-law No. 60 ; and a note should be inserted pointing out that the proceedings called under Bye-law 60 shall not be communicated to the Public Press without the consent of the Chairman, and that the meeting shall be private, but that if a meeting be called under Bye-law 64 it would not be private, and the Press might be present.

Under Bye-law No. 66 the quorum of " forty Fellows " should read " forty Members. "

In paragraphs 2, 3 and 4 of this Bye-law, omit the words " having a right to vote. "

If in the opinion of the Chairman it is desirable to divide on any question, provision to be made for the appointment of tellers and for divisions to be taken.

Bye-law No. 77.—Omit the words " in the United Kingdom, in India, or in any Dominion, Colony or Dependency of the United Kingdom, " and after the words " consisting in whole or in part of professional members " add the words " being British subjects. "

With regard to the Forms of Declaration, it should be stated that each Fellow, Associate, Hon. Associate or Licentiate should agree to accept the Council's decision on any matter and take no legal action against them.

Signed on behalf of the Charter and Bye-laws Committee.
SYDNEY PERKS, *Chairman.*

VISIT ARRANGED BY THE ART STANDING COMMITTEE.

A visit has been arranged to the works of the Crittall Manufacturing Co., Ltd. (metal workers), on Saturday, 21 April 1923. The works are situate at Braintree and Witham, Essex.

The management of Crittall's have kindly arranged to take the party to Braintree in motor cars and to bring them back to London in the afternoon, and have also invited the visitors to lunch.

Members and Licentiates who wish for tickets should apply to the Secretary R.I.B.A. not later than Thursday, 19 April, and should arrange to be at 9, Conduit Street on Saturday, 21 April, between 9 and 9.30 a.m., when they will be met by car.

ANNUAL CONFERENCE, 1923.

The Annual Conference of the R.I.B.A. and Allied Societies will be held in Edinburgh from 13 to 16 June. Members are particularly requested to read the leaflet containing details of the preliminary arrangements made, enclosed with this issue of the JOURNAL.

ST. PAUL'S CATHEDRAL FUND.

The sum of £216 8s. 6d has been subscribed to the above Fund. It is proposed to close the subscription list shortly. The Council desire to make a special appeal to London members of the Royal Institute who have hitherto been unable to subscribe to send in their donations to this Fund without delay.

IAN MACALISTER, *Secretary.*

ELECTION OF MEMBERS, 11 JUNE 1923.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 7 May 1923.

AS FELLOWS (12).

BHEDWAR : SORAB KEIKHUSHRO, B.A. [A. 1912], 17 Elphinstone Circle, Fort, Bombay, India.

BIRKETT : ISAIAH ROBERT EDMONDSON [A. 1886], Fern Lea, 25 Clyde Road, West Didsbury, Manchester.

GUNTON : WILLIAM HENRY [A. 1910], Finsbury House, Blomfield Street, E.C.2.

HARRISON : JAMES STOCKDALE [A. 1898], 7 St. Martin's East, Leicester ; Ratcliffe Road, Leicester.

HEDGES : WALTER FREDERICK [A. 1921], Public Works Department, Victoriaborg, Accra, Gold Coast Colony ; Royal Colonial Institute, Northumberland Avenue, London, W.C.

JENKINS : GILBERT HENRY [Lic. 1911], 6 Old Bond Street, W. (passed Qualifying Examination for Fellowship, 1915).

JEWELL : HARRY HERBERT [A. 1920], 12 Great James Street, Bedford Row, W.C.1 ; 50 Cyril Mansions, Battersea Park, S.W.11.

LOFTHOUSE : JAMES ALFRED ERNEST, M.S.M. [A. 1895], 62 Albert Road, Middlesbrough ; The Croft, Linthorpe, Middlesbrough.

LOFTHOUSE : THOMAS ASHTON [A. 1893], 62 Albert Road, Middlesbrough ; The Croft, Linthorpe, Middlesbrough.

MAYHEW : ROBERT HENRY JEWERS, F.S.I. [A. 1901], 311 Cambridge Road, Bethnal Green ; 171 Church Street, Stoke Newington ; Edmondsbury, Genoa Road, Anerley, S.E.20.

NOTICES

SUTHERLAND : GEORGE [A. 1894], 26 Crown Street, Aberdeen ; 157 Duthie Terrace, Aberdeen.
WIGFULL : JAMES RAGG [A. 1892], 14 Parade Chambers, Sheffield ; 22 Bailsus Road, Nether Edge, Sheffield.

AS ASSOCIATES (58).

- BARTON : FRANK JAMES [Special War Examination], 3 Sunny-hill, Bruton, Somerset.
BENNETT : FRANK EDGAR [Special War Examination], 32 Bedford Place, W.C.I.
BLAIN : ROBERT [Special War Examination], 144 St. Vincent Street, Glasgow.
BRADFORD : STANLEY VICTOR, M.C. [Special War Examination], 43 Endymion Road, Brixton Hill, S.W.2.
BRIDGWATER : DEREK LAWLEY [Special War Examination], 62 Lightwoods Hill, Warley Woods, Birmingham.
BRIGGS : RICHARD WARD, B.A. [Special War Examination], Rothsay, Wilbraham Road, Alexandra Park, Manchester.
BROWN : JOHN GREY [Special War Examination], 292 Second Avenue, Longueuil, Quebec, Canada.
BROWN : ALEXANDER WOOD GRAHAM [Special War Exemption], Shanghai Club, Shanghai, China.
BUTTON : CHESTER [Special War Examination], 137 Beccles Road, Lowestoft.
CLARK : HENRY STANLEY [Special War Examination], 27 Wolverton Road, Stanmore, Middlesex.
CROMBIE : ALAN [Special War Examination], Easington Lodge, Hadleigh Road, Ipswich.
FINLAYSON : MALCOLM [Special War Examination], Main Street, Heidelberg, Victoria, Australia.
GODWIN : WILLIAM JEAN THEODORE [Special War Examination], 33 Matheson Road, Kensington, W.
GRAHAM : RICHARD DAVID [S. 1913—Special War Exemption], 5 Thorndale Avenue, Antrim Road, Belfast.
HAILE : WILFRED LETHABY [Special War Examination], 7 Southfield Road, Cotham, Bristol.
HARDIE : JOHN STEWART [Special War Examination], 5 4th Avenue, Prescot Road, Old Swan, Liverpool.
HART : EDWARD GOYEN [Special War Examination], c/o Messrs. Wm. Black and Fagg, 85 St. George's Street, Cape Town, South Africa.
HENDERSON : WILLIAM ALEXANDER, C.M.G., D.S.O. [Special War Examination], 469 Chancery Lane, Melbourne, Australia.
HIGGINSON : FRANK [Special War Examination], Imperial War Graves Commission, Longuenesse, St. Omer, Pas-de-Calais, France.
HOWARD : GEORGE GERARD [Special War Examination], 12 Rockdove Gardens, Tollcross, Glasgow.
HUNT : SPENCER GREY WAKELEY [Special War Examination], 20 Christchurch Avenue, Brondesbury, N.W.6.
ILLSLEY : HUGH PERCIVAL [Special War Examination], 134 Clandeboye Avenue, Westmount, P.Q., Canada.
JEFFREY : JAMES ROWE [Special War Examination], 247 Elm Avenue, Westmount, P.Q., Canada.
JONES : IENAN ROLAND [Special War Examination], "Arwel," Sylva Gardens South, Craig-y-don, Llandudno.
KING : WILLIAM [Special War Examination], 8 Moss Road, Winnington, Northwich, Cheshire.
KINGSTON : JOHN LYNDHURST, B.Arch.(McGill) [Special War Examination], Messrs. Burritt & Kingston, Hope Chambers, 63 Sparks Street, Ottawa, Canada.
KIRBY : STUART CAMERON [Special War Examination], 35 Bedford Square, W.C.I.
LINDLEY : CECIL JAMES WILLIAM [Special War Examination], "Eridge," Gratwicke Road, Worthing, Sussex.
McKAY : JOHN SIBBALD [Special War Examination], 72 George Street, Perth.
MACKAY : ROBERT STUART STEPHEN [Special War Examination], 2 St. Mary Street, Peterhead, Aberdeenshire.
- MACKAY : NICHOLAS CHARLES [Special War Examination], 37 Bridge Road, Hammersmith, W.6.
MARROTE, EDGAR SAMUEL, B.Arch.(McGill) [Special War Examination], c/o Messrs. Geo. B. Post & Sons, 101 Park Avenue, New York City, U.S.A.
MARSHALL : FRANCIS WILLIAM [Special War Examination], 188 Reddings Lane, Hall Green, Birmingham.
MARTIN : MARCUS WILLIAM [Special War Examination], 352 Collins Street, Melbourne, Australia.
MEE : CLIFFORD EDMUND [Special War Examination], 19 Lambourne Road, Seven Kings, Essex.
MORTON : HUBERT CONRAD [Special War Examination], 35 Bedford Square, W.C.I.
NESBITT : JOHN KENNETH [Special War Examination], La Tuque, P.Q., Canada.
NORCLIFFE : ARTHUR JAMES [Special War Examination], 13 Devondale Road, Mossley Hill, Liverpool.
NUNN : JOHN PRICE, B.A. [Special War Examination], 91 Camp Street, Broughton, Manchester.
PAXTON : NORVAL ROWALLAN, M.C. [Special War Examination], 12, Spring Road, Headingley, Leeds.
PHILLIPS : HERBERT ERIC [Special War Examination], Heretaunga Street, Hastings, Hawkes Bay, New Zealand.
PICTOR : ARTHUR ROBERT DALZEL [Special War Examination], Bruton, Somerset.
POPE : FRANK KENNERELL, A.R.C.A. [Special War Examination], Bleadon, Weston-super-Mare.
PRIDEAUX : ARTHUR, M.M. [Special War Examination], c/o Messrs. Nobbs & Hyde, 14 Phillips Square, Montreal, Canada.
RADFORD : THEODORE REGINALD [Special War Examination], "Millford," Littleham, Exmouth.
ROBERTS : CHARLES HENRY [Special War Examination], 33 Bloomfield Terrace, Chelsea, S.W.
SCOTT-WILLIAMS : PERCY [Special War Examination], Department of Works and Railways, Commonwealth Federal Works Department, Treasury Buildings, Melbourne, Australia.
SIMMS : HERBERT GEORGE [Special War Examination], 33 Victoria Road, N.W.1.
SIMPSON : SIDNEY [Special War Examination], 73, Gassiot Road, Tooting Common, S.W.
SMITH : IRWIN GEORGE [Special War Examination], The Pantiles, Sudbury, Middlesex.
STOTT : THOMAS [Special War Examination], 16 Marquess Road, Canonbury, N.1.
SYMCOX : EDGAR JOHN [Special War Examination], County Architect's Department, Old Court, Springfield, Chelmsford.
WARR : BERNARD GEOFFREY [Special War Examination], Beach Road, Sparkhill, Birmingham.
WEBBER : ERNEST BERRY [Special War Examination], 15 Granard Road, Wandsworth Common, S.W.
WIGGS : HENRY ROSS, B.Sc. [Special War Examination], Hessel Grove, St. Foye Road, Quebec, P.Q., Canada.
WILLIAMS : JOHN CARLTON [Special War Examination], 50 Dovey Road, Moseley, Birmingham.
WORT : WILLIAM SIDNEY [Special War Examination], 4 All Saints Place, Stamford, Lincs.
WRIGHT : ALEC THOMAS [Special War Examination], 41 Have-lock Road, Norwich.

BOARD OF ARCHITECTURAL EDUCATION.

R.I.B.A. INTERMEDIATE EXAMINATION, JUNE 1923.

The centres for this examination will be London and Leeds. At both centres the examination will be held from 1 to 5 June 1923, inclusive.

At the London centre the oral examination will be held on 7 June, at the Leeds centre on 6 June.

Competitions

AUSTRALIAN PARLIAMENT BUILDINGS COMPETITION.

A grant of £105 has been made by the Institute Council to assist the Federal Council of Australian Institutes of Architects in the proposed legal action on behalf of the competitors in this competition.

Members' Column

Members, Licentiates, and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

MESSRS. WATKIN AND MADDOX.

MR. E. T. WATKIN, Lic.R.I.B.A., M.S.A., has been joined in practice by Mr. F. Morrall Maddox, A.R.I.B.A., M.S.A. The title of the firm is Watkin and Maddox, Architects, Surveyors and Valuers, Swan Chambers, Burslem.

MESSRS. REES AND ARCHER-BETHAM.

MR. F. W. REES, M.S.A., M.C.I., Architect and Surveyor, of Croydon, has taken into partnership Mr. A. Archer-Betham, A.R.I.B.A., of 59 Oakley Street, Chelsea. The firm will be known as Messrs. Rees and Archer-Betham, Architects, Surveyors and Civil Engineers, and will practise at 44 Park Lane, Croydon, as heretofore.

MESSRS. FRY, PATERSON AND JONES.

MR. P. G. FRY [F.], of 28 Waterloo Street, Weston-super-Mare, has now taken into partnership Mr. W. Esson Paterson and Mr. Harold Jones, M.C [A.], and the style of the firm will now be as above.

MESSRS. HORNBLOWER AND THORP.

MR. GEORGE HORNBLOWER, F.R.I.B.A., wishes to announce that he has taken into partnership Mr. Ralph W. Thorp, A.R.I.B.A., of 5 Hammersmith Terrace, London, W.6. The practice will be carried on at 2 Devonshire Terrace, Portland Place, London, W.1, under the name of Messrs. Hornblower and Thorp, Architects.

MR. ALFRED G. LOCKHEAD.

MR. ALFRED G. LOCKHEAD, A.R.I.B.A., has commenced practice at 62 Robertson Street, Glasgow. He will be pleased to receive manufacturers' catalogues.

RETIREMENT.

MR. WILLIAM H. THORP [F.], of the firm of Thorp and Foggett, of 84 Albion Street, Leeds, has retired, and the practice will be carried on in future by Mr. George Herbert Foggett [A.] at the same address.

CHANGES OF ADDRESS.

MR. BASIL OLIVER [F.] has removed his office from 7 Southampton Street, Bloomsbury Square, W.C.1, to 148 Kensington High Street, W.8. Telephone: Park 5943.

MR. DELISSA JOSEPH [F.] has removed his offices from 38 Coleman Street, E.C.2, to 2 Basingham Avenue, E.C.2. Telephone: 1138 London Wall. Telegrams: Rebuilding London.

MR. CECIL EPRILE [A.] has removed his offices to 74 Eccleston Square, Westminster, S.W.1. Telephone: Victoria 9589.

MR. GEORGE HOLLINS [A.] has moved to new offices: New Lloyds Bank Chambers, Newcastle, Staffs. Telephone No.: 252 Newcastle.

OFFICE ACCOMMODATION.

WEST-END London Architect can offer good private office with part use of drawing office—Apply Box No. 467, c/o The Secretary R.I.B.A., 9 Conduit Street, W.

A.R.I.B.A., A.M.T.P.I., Silver Medallist, etc., wishes to share his well-lighted West End offices with another with view to possible mutual assistance—Reply Box No. 4423, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. offers share of his offices in good position in Westminster. For particulars apply Box No. 1243, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP WANTED.

ASSOCIATE R.I.B.A. desires partnership in busy office; 14 years' experience in London and provinces. Experienced designer of domestic, public, and commercial office buildings. Three years, pre and post-war, assistant to Sir Edwin L. Lutyens, R.A., F.R.I.B.A.; also experience with other eminent London architects.—Reply Box 475, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

SITUATION WANTED.

ARCHITECT'S Assistant [A.]. General London experience. Working drawings and details. Domestic and public office work. Capable designer in Renaissance work. Enthusiastic worker. Salary moderate.—Apply Box No. 923, c/o The Secretary R.I.B.A., 9 Conduit Street, W.

Mrs. Hansard, the widow of the late Octavius Hansard [F.], is anxious to sell twelve water colours and three oil paintings, painted by her late husband. Mrs. Hansard's address is 20 Surbiton Road, Kingston.

Minutes XII

SESSION 1922-1923.

At the Eleventh General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 9 April 1923, at 8 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 18 Fellows (including 4 members of the Council), 25 Associates, and a number of visitors.

The Minutes of the Tenth General Meeting, held on 19 March 1923, having been taken as read, were confirmed and signed by the President.

The Hon. Secretary announced the decease of the following members: Harry Thomas Sandy, elected Fellow 1920; Harry Ramsay Taylor, elected Fellow 1906. It was RESOLVED that the regrets of the Institute for the loss of these members be recorded on the Minutes of the Meeting, and that a message of condolence and sympathy be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President: Mr. F. C. Eden [F.], Mr. H. W. Pritchard [A.].

Mr. H. M. Fletcher [F.] having read a paper on "The Architecture of Provincial France," a discussion ensued, and on the motion of Mr. Edward P. Warren, F.S.A. [F.], seconded by Monsieur Fernand Billerey, a vote of thanks was passed to Mr. Fletcher by acclamation, and was briefly responded to.

The proceedings closed at 9.50 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Report of the Council for the Official Year 1922-23

SINCE the publication of the last Annual Report the Council have held 22 Meetings. The following Boards and Committees appointed by the Council have met and reported from time to time on the matters referred to them :—

Annual Dinner Committee.
Board of Architectural Education.
Charter and By-Laws Committee.
Sir Christopher Wren Bicentenary Joint Committee.
Competitions Committee.
Conditions of Contract Committee.
Fellowship Drawings Committee.
Finance and House Committee.
Housing Committee.
London Building Acts Committee.

London Street Architecture Jury.
Masonic Memorial Committee.
Registration Committee.
R.I.B.A. Exhibition Joint Committee.
Royal Gold Medal Committee.
Selection and General Purposes Committee.
Sessional Papers Committee.
Town Planning Committee.
Whitgift Hospital Conference.

Particulars of the work of these Boards and Committees, so far as they are available for publication, are embodied in this Report.

Obituary. The losses by death have been as follows :—

Batterbury : Thomas (Resigned 1912).
Black : William.
Brewill : Lt.-Col. Arthur William, D.S.O.
Brown : George Thomas.
Burrows : Walter James.
Cooksey : Arthur William.
Crocker : James.
Durlacher : Alexander Percy.
Evans : Charles Glynn.

Bernard : William Larkins.
Bryce : John.

FELLOWS.
Fulton : James Black.
Gordon : Henry Thomas.
Hall : Edwin Thomas.
Halliday : George Eley, F.S.A.
Harrison : Arthur.
Marks : Frederick William.
Millar : Thomas Andrew.
Naylor : John Reginald.
Newman : Arthur Harrison.
Reid : Arthur Henry.
Ridge : Lacy William (Resigned 1912).

Roe : Richard Mauleverer.
Sandy : Henry Thomas.
Satchell : Herbert Arnold.
Taylor : Harry Ramsey.
Thomson : Howard Henry.
Tree : Philip Henry.
Walker : William.
Wall : Joseph Barker Daniel.
Waymouth : George.
White : Henry.
Wilson : John Bennie.

RETIRED FELLOWS.
Clegg : Charles.
Ebbets : Walter James.
George : Sir Ernest, R.A.

Mathews : Joseph Douglass.
Williams : Alfred.

Beaumont : George.
Bessant : Robert Saxton (Resigned 1909).
Cheek : Cyril Cliff.
Eaglesham : John.

ASSOCIATES.
French : Harold.
Grant : Spencer William.
Halsall : Francis Peter.
Henderson : James Murdoch Dalziel.
Innocent : Charles Frederick.

Laurence : George Evelyn Tidmarsh.
Scrymgour : William Harrington.
Searle : Septimus Cecil.
Triggs : Harry Inigo.
Webb : William Arthur.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Christie : David.
Elwes : Robert Gervase.
Fleming : George Granger.
Hector : John Black.
Higgins : Henry.
James : John Alfred.

LICENTIATES.
Jennison : John.
Mennie : Harvey.
Nicholls : John Herbert.
Roderick : Thomas.
Souza : Antonio Vincente de.

Stallybrass : Basil Thorold.
Stones : Edgar.
Vasey : John Mowbray Harrison
Walker : Percy.
Wood : Absalom Reade.
Young : Collings Beatson.

Jaipur : H.H. Saramad-I-Rajaha-I-Hindustan Raj Rajindra Sri Maharajadhiraj
Sawai Sir Madho Singh Bahadur, Maharaja of, G.C.S.I.

HONORARY FELLOWS.

Brock : Sir Thomas, K.C.B., R.A.

HONORARY ASSOCIATES.
Shannon : Sir James Jebusa, R.A.

Plymouth : The Rt. Hon. the
Earl of, P.C., G.B.E.

HONORARY CORRESPONDING MEMBERS.

Barnabei : Commendatore Felice (Rome).

Repulles y Vargas : Don Enrique Maria (Madrid).
Bouvard : Joseph Antoine (Paris).

Walmisley : Arthur Thomas.

Membership. The following table shows the Membership and Licentiateship of the Royal Institute compared with the preceding five years :—

	Fellows.	Associates.	Licentiates.	Hon. Fellows.	Hon. Associates.	H.C.M.	Ret. F's.
1918	838	1,631	1,882	11	45	46	41
1919	834	1,720	1,836	10	46	45	43
1920	863	1,773	1,715	11	44	41	43
1921	969	2,032	1,537	12	45	41	43
1922	969	2,214	1,487	12	45	38	45
1923	964	2,316	1,408	10	54	45	47

During the official year since the last Annual General Meeting 35 Fellows and 178 Associates have been elected, as against 33 Fellows and 224 Associates in the previous year.

Of the 960 Fellows whose names appear in the current *Kalendar* 443, or 46 per cent., were elected from the Associate class, 184, or 19 per cent., were elected from the Licentiate Class after examination, 324, or 33 per cent., were elected without examination under the conditions which existed before the grant of the Charter of 1909, and 9, or less than 1 per cent., were elected by the Council under Clause 2 of the Charter of 1909. Of the 2,316 members of the Associate Class 1,008, or 43 per cent., have been elected since the date of the Armistice.

The Allied Societies. The membership of the Allied Societies, as shown in the last issue of the *KALENDAR*, now reaches a total of 4,133, including 1,032 Members and 400 Licentiates of the Royal Institute. The membership of the Architectural Association is now 1,615, including 631 Members and 79 Licentiates of the Royal Institute.

The Council have had the pleasure of admitting to alliance the Federal Council of the Australian Institutes of Architects and of sanctioning the reorganisation of the Bristol Society of Architects and the Gloucestershire Architectural Association under the style of 'The Wessex Society of Architects' with the two constituent bodies as its first branch Societies.

Assessors Since the issue of the last Annual Report the following Assessors have been appointed on the President's nomination :—

New Buildings for the Auctioneers' and Estate Agents' Institute—Sir Reginald Blomfield, R.A. [F].
Newport War Memorial—Mr. E. Guy Dawber, F.S.A. [F].
Felsted School War Memorial—Mr. J. Alfred Gotch, F.S.A. [F].
Dewsbury War Memorial—Professor C. H. Reilly, O.B.E. [F].
Lytham Public Hall and Baths—Mr. A. W. S. Cross [F].
Ramsgate Lay-out—Professor S. D. Adshead [F].
Hampstead Way Flats—Mr. L. Rome Guthrie [F].
Raffles College, Singapore—Mr. John Begg [F].
Keighley War Memorial—Mr. Arthur J. Hope [F].
Weymouth Concert Room—Mr. H. M. Fletcher [F].
International Labour Office, Geneva—Mr. Edward P. Warren, F.S.A. [F].
Tunbridge Wells Pavilion—Mr. E. Guy Dawber, F.S.A. [F].
Bournemouth Pavilion—Sir Edwin Cooper [F].
Offices for Messrs. Alfred Holt and Co., Liverpool—Mr. G. Gilbert Scott, R.A. [F].
"Builder" Cost of Building—Professor S. D. Adshead [F].
Hull Cenotaph—Mr. Stanley H. Hamp [F].
Greenwich Public Baths and Washhouses—Mr. H. V. Ashley [F].
New Masonic Buildings, Swansea—Mr. Arthur Keen [F].

ANNUAL REPORT OF THE COUNCIL

Arbitrators. During the year the President has appointed the following members to act as Arbitrators in connection with building disputes :—

- | | |
|--------------------------------|--------------------------------|
| Mr. Herbert T. Buckland [F.] | Mr. Arthur Keen [F.] |
| Mr. Max Clarke [F.] | Mr. G. C. Lawrence [F.] |
| Mr. Heaton Comyn [F.] | Mr. Gilbert H. Lovegrove [F.] |
| Mr. C. F. W. Dening [F.] | Mr. T. R. Milburn [F.] |
| Mr. Gilbert Fraser [F.] | Mr. Paul Ogden [F.] |
| Mr. D. T. Fyfe [F.] | Mr. S. B. Russell [F.] |
| Mr. F. H. A. Hardcastle [A.] | Mr. E. J. Sadgrove [F.] |
| Mr. J. Stockdale Harrison [A.] | Mr. J. Douglas Scott [A.] |
| Mr. A. W. Hennings [F.] | Mr. W. Gillbee Scott [F.] |
| Mr. Francis Hooper [F.] | Mr. H. D. Searles-Wood [F.] |
| Mr. George Hubbard [F.] | Mr. Dendy Watney [Licentiate]. |
| Mr. Francis Jones [F.] | Mr. W. Henry White [F.] |
| Mr. Delissa Joseph [F.] | Mr. Edmund Wimperis [F.] |

Grants. Since the issue of the last Annual Report the Council have made the following Grants :—

The Architectural Association	£100 0 0	British Engineering Standards Association	£5 0 0
The Architectural Association Endowment Fund	125 0 0	British Non-Ferrous Metals Research Association	10 0 0
The Architects' Benevolent Society	100 0 0	British School at Rome	53 3 0
The Architects and Surveyors' Approved Society	75 0 0	Conjoint Board of Scientific Societies	20 0 0
Architectural Lectures, Oxford	30 0 0	The Franco-British Union of Architects	70 0 0

Royal Gold Medal. The Royal Gold Medal for Architecture for the year 1922 was awarded to Mr. Thomas Hastings, of New York, and was presented to him at the General Meeting on 26 June 1922. This year the Medal is to be awarded to Sir John J. Burnet, A.R.A., R.S.A., in recognition of the merit of his work as an Architect. His Majesty has graciously signified his approval of the award.

Appointments. During the Session the Council have made the following appointments of members to represent the Royal Institute on the various bodies or for the purposes indicated :—

BUILDING TRADES PARLIAMENT—Mr. H. D. Searles-Wood [F.]

METROPOLITAN WATER BOARD, SUB-COMMITTEE ON REGULATIONS FOR PREVENTION OF WASTE, ETC.—Mr. H. W. Burrows [A.]
KENWOOD PRESERVATION COUNCIL—Mr. Alan E. Munby [F.]

BRITISH ENGINEERING STANDARDS ASSOCIATION, SECTIONAL COMMITTEE ON BRIDGES AND BUILDING CONSTRUCTION—Mr. Max Clarke [F.]

INTERNATIONAL HOUSING CONGRESS AT ROME, SEPTEMBER 1922—Mr. G. Topham Forrest [F.]

INTERNATIONAL CONGRESS OF ARCHITECTS AT BRUSSELS—Mr. Paul Waterhouse (President) and Mr. Edward P. Warren [F.]

NATIONAL FEDERATIONS OF BUILDING TRADES EMPLOYERS AND OPERATIVES, CONFERENCE ON DEMARCTION DIFFICULTIES BETWEEN OPERATIVE PLUMBERS AND OTHER TRADE UNIONS—Mr. Paul Waterhouse (President), Mr. Arthur Keen [F.], and Mr. H. D. Searles-Wood [F.]

JOINT ARCHÆOLOGICAL COMMITTEE—Mr. Edward P. Warren [F.]

UNIVERSITY OF LONDON ARCHITECTURAL EDUCATION COMMITTEE—Mr. Paul Waterhouse (President) and Mr. Arthur Keen [F.]

BRITISH ENGINEERING STANDARDS ASSOCIATION, SUB-COMMITTEE ON CAST IRON HALF ROUND, O.G., AND OTHER MOULDED GUTTERS—Mr. Max Clarke [F.]

LONDON COUNCIL FOR THE NATIONAL REGISTRATION OF PLUMBERS—Mr. H. D. Searles-Wood [F.]

ROYAL SANITARY INSTITUTE CONGRESS, 1923, HULL—Mr. H. D. Searles-Wood [F.] and Mr. Llewellyn Kitchen [F.]

COMMITTEE ON THE REGISTRATION OF ELECTRICAL CONTRACTORS—Mr. Max Clarke [F.]

REGISTRATION OF ELECTRICAL CONTRACTORS, REGISTRATION AUTHORITY—Mr. Max Clarke [F.] and Mr. Alan E. Munby [F.]

ELMES TESTIMONIAL FUND FOUNDATION—Mr. Hastwell Grayson [F.]

EMPIRE FORESTRY ASSOCIATION GOVERNING COUNCIL—Mr. H. D. Searles-Wood [F.]

NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS, NINTH ANNUAL CONFERENCE.—Mr. W. A. Pite [F.] and Mr. Rupert Savage [F.]

Sessional Papers. The following Papers have been read since the issue of the last Annual Report :—

“The First Half-Century of the R.I.B.A.,” by Mr. J. A. Gotch, F.S.A. [F.]

“Colour in Architecture,” by Mr. William Harvey, Owen Jones Student 1913.

“Recent Excavations at Rome,” by Dr. Thomas Ashby [H.A.]

“Illuminating Engineering in Relation to Architecture,” by Mr. Lawrence M. Tye.

“The Law of Building Outside London,” by Mr. A. N. C. Shelley, M.A.Oxon., B.C.L., of H.M. Ministry of Health.

“The London County Hall,” by Mr. Ralph Knott [F.] and Mr. W. E. Riley, R.B.A. [F.]

“Architecture and Architects in India,” by Mr. H. V. Lanchester [F.]

“The Hammersmith Housing Scheme,” by Mr. G. E. S. Stretefield, O.B.E., D.S.O. [F.]

“The Architecture of Provincial France.” by Mr. Henry M. Fletcher, M.A.Cantab. [F.]

“Theories Classical and Romantic,” by Mr. William G. Newton, M.C., M.A.Oxon. [A.]

The following Paper will be read before the end of the Session :—

“Building Heights and Ancient Lights,” by Mr. Delissa Joseph [F.]

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The Australian Parliament Buildings Competition. At the request of the Federal Council of Australian Institutes of Architects, the Council have protested against the action of the Federal Government in regard to the Competition for the new Parliament Buildings at Canberra, and have offered a sum of one hundred guineas in support of legal proceedings on behalf of the competitors.

Academic Dress. Proposals for the adoption of an academic costume for Members and Licentiates of the R.I.B.A. have been discussed by the Council. A Sub-Committee of the Council has prepared a definite scheme for the purpose, and the Council have submitted the matter to the General Body for consideration.

Revision of the Charter and By-laws. Considerable progress has been made in the work of revising the Charter and By-Laws and an interim report will be submitted to a Special General Meeting on 30 April. A final report will be submitted at an early date.

The Masonic Memorial Building. In view of the contemplated erection in London of a Masonic Memorial Building, a letter was addressed to the Grand Secretary asking permission for a deputation from the R.I.B.A. to attend before the appropriate Committee of Grand Lodge in order to suggest the desirability of a Competition for the proposed Masonic Memorial Building.

Provincial Conferences. The Annual Conference of 1922 was held in Cardiff at the invitation of the South Wales Institute of Architects. The admirable arrangements made by the Council of that body resulted in the unqualified success of the programme.

The Annual Conference of 1923 will be held from the 13th to the 16th June in Edinburgh, in conjunction with the Annual Convention of the Incorporation of Architects in Scotland, who have kindly undertaken the task of organisation. It is anticipated that the great success of the preceding Conferences at Liverpool and Cardiff will result in a very largely increased attendance at Edinburgh, and it is hoped that a really representative gathering of the architects of the United Kingdom will take advantage of the admirable programme arranged by our Scottish colleagues.

The Architecture Club. The Council welcome the foundation of the "Architecture Club," which has just held a remarkably successful Exhibition of British Architecture at Grosvenor House. The work of this new organisation cannot fail to be of real service to the art of architecture.

St. Paul's Cathedral Fund. A Subscription List has been opened in aid of the St. Paul's Cathedral Fund. A total sum of £216 8s. 6d. has been contributed up to date. Of this amount £137 3s. has been subscribed by the Allied Societies and £79 5s. 6d. by London members and by members unattached to the Allied Societies. It is hoped that those who have not yet contributed to this great object will do so before the list is closed.

The College of Hygiene. The Council have addressed the Ministry of Health on the subject of the New College of Hygiene which is to be erected in London with funds provided by the Rockefeller Trust and have urged that a Competition, open to American as well as to British Architects, should be held for the design of the building.

R.I.B.A. Certificate Book. The Council have decided that the sale of the R.I.B.A. Certificate Book should in future be restricted to Members and Licentiates of the R.I.B.A.

The Honorary Secretary of the R.I.B.A. in South Africa. The Council learned with the deepest regret the news of the death of Mr. Arthur H. Reid [F.], who had served for many years as Hon. Secretary in South Africa, and in that capacity had rendered the greatest services to the R.I.B.A. and to the profession generally.

Mr. E. M. Powers [F.] has been offered and has accepted the appointment in place of the late Mr. Reid.

Speculative Housing Fees. During the Session several meetings have taken place between the Practice Standing Committee and representatives of the National Federation of House-Builders, the London House-Builders' Association and the National Federation of Building Trades Employers for the purpose of arriving at an agreed Scale of Fees payable to Architects who are employed by speculative house-builders to prepare plans, details and elevations, but not to supervise work or to prepare specifications.

A scale of fees has been agreed between the representatives and is now under the consideration of the different bodies concerned.

ANNUAL REPORT OF THE COUNCIL

National Housing. Upon the recommendation of the Housing Committee the Council have forwarded to the Ministry of Health a memorandum embodying certain suggestions as to future housing policy. These suggestions included an extension of the principle of the Small Dwellings Acquisition Act, annual block grants of an agreed sum per house to Local Authorities (during the continuance of the Rent Restriction Act only) or, alternatively, the grant of loans on easy terms to Local Authorities. It was further suggested that Local Authorities might be empowered to use these grants for reducing the ground rent of land leased to private builders in order to assist private enterprise. The importance of a high standard of lay-out and accommodation was emphasised.

Exhibitions. Three exhibitions of interest to the general public have been held. In December 1922 the Exhibition of Contemporary British Architecture was open for three weeks, and attracted very favourable notice in the Press. This Exhibition has been sent to the United States at the invitation of the Architectural League of New York, who report that it has aroused much interest both in New York and in other centres.

The Exhibition of Wren drawings, relics, and MSS., and of engravings, drawings, and photographs of Wren's buildings was held from 26 February to 3 March, and was well attended.

An exhibition of drawings and etchings by Mr. William Walcot [F.] was held in the Galleries from 6 April to 28 April. It was very largely attended, and was the subject of enthusiastic notices in the general Press.

London Street Architecture. The Jury appointed to award a Medal for the building with the best street façade within four miles of Charing Cross, and completed during the year 1922, have carried out their programme, and the announcement of the award is expected shortly.

National Code of Building By-laws. On the recommendation of the Building Code Joint Committee the Council have pressed the Ministry of Health to enforce their circular No. 332, and have urged the promotion of a Bill providing for the periodical revision of by-laws, for a greater uniformity than exists at present, and for the establishment of a power of appeal.

The R.I.B.A. War Memorial. The War Memorial Tablet, containing the names of 232 members and students of the Royal Institute who fell in the Great War, was unveiled by the Earl of Crawford on 20 November 1922. The dedication prayers were read by the Rector of St. George's, Hanover Square (the Rev. Prebendary F. N. Thicknesse).

The R.I.B.A. Premises. Plans have been prepared by the Hon. Secretary (Mr. Arthur Keen) for alterations and additions to the R.I.B.A. premises at 9 Conduit Street. These alterations comprise the rebuilding of the Great Gallery and the altering of the East Gallery. It is hoped that work will be begun in June and completed in November.

Registration. The Council approved, on 8 January 1923, the Draft Registration Bill, prepared by the Registration Committee. This Bill was submitted to a General Meeting of members on 29 January 1923, when a Resolution was carried by the necessary majority that the Bill be not considered until the other professional societies and interests affected had been consulted, and a general consensus of professional opinion obtained in favour of the Bill. The Council have taken the necessary action in accordance with this Resolution.

Housing Fees. The Delegates appointed by the general body carried through, during the summer of 1922, protracted negotiations with the Ministry of Health. The result has been the issue of G.H.M. No. 61. Under the provisions of Clause E (4) of this Memorandum, the R.I.B.A. was made the certifying authority as regards architects who had carried to execution no houses for any Local Authority, under the State-Assisted Scheme. In order to administer this clause a Tribunal consisting of the three members who had previously acted as Delegates (Mr. Francis Jones, Mr. H. T. Buckland, and Mr. H. A. Welch) was appointed.

In addition to their duties under Clause E (4) they have advised, unofficially, a great number of housing architects upon their accounts for "partially abandoned" schemes. They have already dealt with approximately 170 cases. The thanks of the whole profession are due to the members of the Tribunal for their untiring labours in the interests of architects who have been engaged on housing schemes.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Conditions of Contract. Negotiations with the representatives of the Building Trades Employers have continued since the publication of the last Annual Report. The Conditions of Contract Conference in July 1922 appointed a Drafting Committee to proceed with the preparation of an agreed Form of Contract, and a Tribunal of Appeal, under the chairmanship of Sir William Mackenzie, with one architect and one contractor as members, to decide all points upon which agreement could not be reached. Negotiations are now proceeding along these lines.

Royal Commission on Greater London. In May 1922 a deputation, consisting of Major Harry Barnes, Professor S. D. Adshead, and Mr. W. E. Riley, gave evidence before the Royal Commission on Greater London on behalf of the R.I.B.A. The deputation was introduced by Sir Aston Webb, P.R.A. The evidence dealt with roads, building-lines, railways, the choice of residential areas, open spaces, built-up areas, the London Building Act and Building By-laws, and emphasised the importance of the preparation of a plan for Greater London.

The Wren Bicentenary. The programme, arranged by a Grand Committee of representatives from the Government, the Universities, and a great number of learned societies and other bodies, was duly carried out. The thanks of the Council are due to all these bodies and their representatives for their enthusiastic co-operation, to the Dean and Chapter of St. Paul's Cathedral, to the Lord Mayor of London for his hospitality in entertaining the Grand Committee at the Guildhall, to all those who contributed to the Wren Exhibition, to the public Press for the publicity which they gave to the proceedings, to the Master and Fellows of Pembroke College, Cambridge, for their hospitality on 27 February upon the occasion of the visit to Cambridge, and, lastly, the Executive Committee, who were responsible for all the detailed arrangements.

Annual Dinner. The Annual Dinner of the R.I.B.A., which took the form of "Wren Commemoration Banquet," was held at the Hotel Victoria on Monday, 26 February 1923, when a large number of distinguished guests were present. Addresses on Sir Christopher Wren and his work were delivered by the President, Sir Reginald Blomfield, R.A., and Mr. Mervyn Macartney.

Architects' War Relief Fund Committee. The balance of funds at the disposal of this Committee (of which Mr. H. D. Searles-Wood is the Chairman) is gradually being exhausted, and it is not expected that it will last beyond the end of the current year. Thirty-three cases have been assisted by grants during the year, and eight cases by subsidised employment on the Civic Survey of Greater London (under the auspices of the London County Council) and on the map of the London Society.

Charing Cross Bridge. The Report of the Art Standing Committee urging that the R.I.B.A. should support the scheme for a new road and a general traffic bridge at Charing Cross was referred back to the Committee for reconsideration:—(1) By making provision for carrying the railway traffic from the south side to Charing Cross either by railway under the new general traffic bridge or by a tube under the river. (2) By omitting from the Report any specific condemnation of the proposed St. Paul's Bridge. (3) By considering the effect of the St. Paul's Bridge upon the clearance of insanitary areas between Blackfriars and Westminster Bridges, as well as the effect of the Charing Cross Bridge upon the clearance of insanitary areas in the neighbourhood of Waterloo. (4) By disclosing to the Council the data upon which the conclusions of the Art Standing Committee have been founded.

Sketches by the late Sir Ernest George, R.A. The Council are indebted to the generosity of Mr. Charles H. Heathcote (Vice-President) for the purchase and presentation to the R.I.B.A. Library of an album containing about fifty sketches by the late Sir Ernest George, R.A.

REPORT OF THE BOARD OF ARCHITECTURAL EDUCATION

Since the beginning of the Session the Board have held 7 meetings.

Mr. W. Curtis Green was re-elected Chairman, Mr. Walter Cave and Mr. George Hubbard, F.S.A., were elected Vice-Chairmen, and Mr. Henry M. Fletcher Honorary Secretary.

ANNUAL REPORT OF THE COUNCIL

Attendance of Members.—Since the beginning of the Session the attendance of members at meetings of the Board, exclusive of Committee and Sub-Committee meetings, has been as follows :—

	No. of Attendances.		No. of Attendances.
The President R.I.B.A.	—	Mr. H. M. Fletcher	6
The Hon. Secretary R.I.B.A.	2	Mr. W. Curtis Green	7
Mr. H. D. Searles-Wood	4	Sir Robert Lorimer, A.R.A.	—
Mr. George Hubbard	1	Professor Beresford Pite.	2
Mr. A. W. S. Cross	2	Mr. W. S. Purchon	3
Professor S. D. Adshead	3	Professor A. E. Richardson	1
Mr. Robert Atkinson	4	Professor C. H. Reilly, O.B.E.	5
Mr. H. C. Bradshaw	7	Mr. Alan E. Munby	2
Mr. Walter Cave	4	Mr. E. Stanley Hall	6
Mr. E. Guy Dawber	—	Mr. Basil Oliver	4
Professor A. C. Dickie	3		

Committees.—The following Committees of the Board were appointed :—Committee of Teachers, Examinations Committee, Problems in Design and Testimonies of Study Committee, Probationers' Registration Committee.

The following Sub-Committees have been appointed to deal with particular questions :—The Recognised Schools Medal Sub-Committee, the Executive Committee for the International Congress on Architectural Education, the Charter and By-Laws Sub-Committee, the American Travelling Studentship Sub-Committee.

The Problems in Design and Testimonies of Study Committee is no longer served by a rota of members of the Board, as it was found difficult to preserve a continuity of standard in judging the work submitted.

A Committee has now been appointed to serve for the Session, and the standard for passing and rejecting work submitted has been carefully maintained.

Students whose work has been rejected are now furnished with a general criticism of their designs on application to the Board.

The Committees of the Board have met from time to time and have reported on the matters referred to them.

Exemption from the Final Examination.—Exemption from the Final Examination, with the exception of the Examination in Professional Practice, and provided that in judging all designs submitted for the Diploma or Degree there be two External Examiners, approved by the Council, with power of veto, has this year been granted to the Robert Gordon Technical College, Aberdeen.

The complete list of Schools thus recognised is as follows :—The Architectural Association School of Architecture (London), Liverpool University School of Architecture, Glasgow School of Architecture, London University School of Architecture, Manchester University School of Architecture, Robert Gordon Technical College (Aberdeen).

Exemption from the Intermediate Examination.—Exemption from the Intermediate Examination has been granted to the Armstrong College, Newcastle-on-Tyne, on its Diploma Course up to the Intermediate standard (i.e., after three years' study).

R.I.B.A. Silver Medal for Recognised Schools.—On the recommendation of the Board the Council have decided to award a Silver Medal for the best set of drawings submitted at the Annual Exhibition by Post-graduate Students of the Recognised Schools exempted from the Final Examination.

The Annual Exhibition referred to took place in September, and a meeting of the Board was held to inspect the work submitted.

The Exhibition was then opened to the public.

The Board have drawn up and circulated to the Recognised Schools regulations governing this Exhibition and the Exhibition of Designs of Students exempted from the Intermediate Exhibition. (Each School with exemption from the Intermediate Examination is required to submit annually for exhibition one design from each student who is exempted.)

The drawings which won the Silver Medal, with those which were highly commended, have been dispatched on a tour of the Recognised Schools for the purpose of local Exhibitions.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Publications.—There has been a considerable demand for the following pamphlets :—

1. *Membership of the R.I.B.A.*, containing full particulars of the qualifications for the Associateship.
2. *Past Examination Questions*, a pamphlet of the questions set at the Intermediate and Final (or Special) Examinations, June, 1922

Exhibition of Working Drawings.—The annual Exhibition of Completed Buildings was held in November. The Exhibition included drawings kindly lent by Mr. A. J. Davis [F.] (Royal Automobile Club); Mr. E. Guy Dawber, F.S.A. [F.] (Eyford Park, Gloucestershire); Sir Robert Lorimer, A.R.A. [F.] (Chapel of the Knights of the Thistle); Sir Edwin Lutyens, R.A. [F.] (Imperial Delhi; Hampstead Garden Suburb); Mr. G. Gilbert Scott, R.A. [F.] (New Catholic Church, Northfleet; Memorial Chapel, Chester Cathedral).

The Exhibition was of great educational value to Students and the Junior Members of the Royal Institute.

A special Students' Evening was held in connection with the Exhibition. There was a good attendance of Students. Some of the Architects who had kindly lent exhibits were present to explain to the Students the problems met with in the preparation of the respective designs.

Exhibition of American, French and Dutch Drawings.—Arrangements are being made for an Exhibition of American, French and Dutch Working Drawings. A Students' Evening will be held during this Exhibition.

Advisory Members of the Board.—The Council have appointed the following Advisory Members of the Board :—

- Professor P. Abercrombie, representing Liverpool University Department of Civic Design, School of Architecture.
Professor A. Berrington, representing Toronto University.
W. H. Bidlake and H. T. Buckland, representing Birmingham.
G. Washington Browne, representing Edinburgh College of Art.
Professor R. W. Cable, representing Bombay School of Art.
C. de Gruchy, representing Royal Academy Architectural School.
Professor Percy Nobbs and Professor Ramsay Traquair, representing McGill University, Montreal.
Professor Leslie Wilkinson, representing Sydney University.
Rev. Arthur Chilton, D.D., and C. H. Greene, representing Head Masters' Conference.
L. Sylvester Sullivan, representing Society of Architects.
E. Fiander Etchells, A.M.Inst.C.E., representing Institution of Structural Engineers.
S. Hurst Seager, representing New Zealand.
Rodney H. Alsop, representing Victoria, Australia.

Copies of all publications and notices on matters of general interest have been circulated to the Advisory Members for their information and comment.

Problems in Design and Testimonies of Study.—226 designs have been received, and 141 have been approved. Whenever possible successful designs have been exhibited in the Galleries for the information of Students.

A number of successful designs have been sent on an Exhibition Tour to the Allied Societies in order to assist Students in the Provinces.

The arrangements of the Problems have been revised, and they are now set for a period of twelve instead of six months. The lists will be published on the first of January yearly.

Prizes and Studentships.—The new arrangements for drawing up the Programmes and assessing the Drawings submitted proved to be successful and were mainly responsible for an entry in the Competitions larger than that of the year before.

The Board appointed Juries of five Members to assess the Drawings submitted in the Competitions. The Council adopted the report of the Board and the Award was published in the JOURNAL for 27 January 1923.

The Council, on the recommendation of the Board, tender their grateful acknowledgments to the Members of the Juries for their services.

The R.I.B.A. Henry Jarvis Studentship (at the British School at Rome) 1922 was awarded to George Checkley (Liverpool University).

The R.I.B.A. Henry Jarvis Studentship at the Architectural Association 1922 was awarded to John Chiene Shepherd.

ANNUAL REPORT OF THE COUNCIL

The R.I.B.A. Archibald Dawnay Scholarships 1922 were awarded to :—Eric Usher Channon (Architectural Association), David John Alexander Ross (Robert Gordon's Technical College, Aberdeen), Chalmers Henry Hutton (Liverpool University).

The R.I.B.A. Henry Jarvis Ex-Service Travelling Studentships.—These are tenable at the following Recognised Schools :—

	Student- ships.		Student- ships.
The Architectural Association	3	Edinburgh College of Art and Heriot-Watt College	1
Liverpool University School of Architecture	2	Leeds School of Art	1
University of London School of Architecture	2	Robert Gordon's Technical College, Aberdeen	1
Manchester University School of Architecture	1	Technical College, Cardiff	1
Glasgow School of Architecture	1	Board of Architectural Studies, Cambridge	1

Books Recommended to Students.—A revised list of books recommended to Students is in the course of preparation and will be published shortly.

The International Congress on Architectural Education.—The Council have decided to hold an International Congress on Architectural Education in London in the autumn of 1924.

The Congress will consist of special Meetings for the purpose of considering the history, position and prospects of Architectural Education with special reference to the following points :—

Revision of the Methods and System of Obtaining Professional Qualifications.

Sources of Study. Use of Travel.

Prizes and Awards of Honour.

Preliminary Studies.

Detailed Subjects : Draughtsmanship ; Study of History ; Practical Handwork ; Professional Journals ; Contact with Works.

Examinations : Standards ; Relation to Practice ; Paid Examiners.

Promotion of Post-Graduate Studies : Relation to Preliminary and General Education.

These Meetings will be held for formal and informal discussion. Arrangements will also be made for :—
Social Intercourse.

Visits to Schools, Museums, Places of Interest.

A Reception.

An Exhibition.

The subject of the Congress, important at all times to Architects, is more than ever important at the present day in view of the vital changes which are being introduced into British Architectural Education by the Schools. It is hoped that a national and international exchange of ideas will lead to valuable future developments.

The Organising Committee of the Board of Architectural Education will be glad to receive and consider suggestions for the greater success of the Congress, which should be sent to the Secretary of the Board of Architectural Education, 9, Conduit Street, W.1.

Central Technical College, Brisbane.—The Board are in communication with the authorities of the Central Technical College, Brisbane, with reference to exemption from the Intermediate Examination.

Architectural Education in Oxford.—The Council have made a grant of £30 in aid of a series of Architectural Lectures in Oxford.

There has been a good attendance at the Lectures.

At the request of the Committee for the Fine Arts, Oxford, the Board have made recommendations with reference to the appointment of a Lecturer for a series of Lectures on Architecture in connection with the Faculty of Modern History. The matter is still under the consideration of the General Body of the Faculties, Oxford.

Town Planning and Architectural Education.—The Board have under consideration the question of the study of Town Planning in Architectural Education.

Retrenched Officers.—On the recommendation of the Board the Council have informed the Recognised Schools that they are prepared to consider, on their merits, requests for special concessions that may be received from the Schools on behalf of retrenched officers.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Special War Examinations (Unsuccessful Candidates).—On the recommendation of the Board, the Council have decided that candidates who have sat for and failed to pass the Special War Examinations shall be allowed to sit for the Special Final Examination at any time up to the end of 1925.

Candidates who have failed in the Special War Examination on only one occasion will not be required to pay a further fee, but those candidates who have had two or more attempts will be required to pay the ordinary fee for the Special Final Examination.

American Travelling Studentship.—A Sub-Committee of the Board have considered a proposal from Mr. Alfred C. Bossom, of New York, that he should endow an American Travelling Studentship to be administered by the R.I.B.A.

The Sub-Committee have drawn up a scheme which has been submitted to Mr. Bossom.

Registration as Probationer.—165 Probationers have been registered.

The Intermediate, Final and Special Examinations.—The Intermediate Examination has been held once in England and once in Sydney. The Final and Special Examinations have been held once in England, once in Cape Town and once in Sydney.

		Exempted.	Examined.	Passed.	Relegated.
INTERMEDIATE EXAMINATION—	England . . .	20	111	26*	85
" "	Sydney . . .	—	1	1	—
	Total . . .	20	112	27*	85
FINAL AND SPECIAL EXAMINATIONS—	England . . .	Exempted.	Examined.	Passed.	Relegated.
" "	Sydney . . .	5†	33	17*	14
" "	Cape Town . . .	—	1	1	—
	Total . . .	5†	35	18*	15

46 Students have therefore been added to the Register during the year, and 22 have received exemption from or passed the Final (or Special) Examination qualifying for the Associateship.

Special War Examination and Special War Exemption.—The Special War Examination has been held twice in England and Cape Town, once in Bombay, Rangoon, Sydney, Melbourne and Toronto ; 453 candidates presented themselves, of whom 198 passed.

Three Students have been granted the Special War Exemption from the Final Examination.

At the Statutory Examination qualifying for candidature as District Surveyor in London, two candidates were examined and one passed.

The Council, on the recommendation of the Board, tender their grateful acknowledgments to the Examiners for their services.

REPORT OF THE ART STANDING COMMITTEE

Eight meetings have been held since the issue of the last Annual Report.

The officers elected at the commencement of the Session were : Mr. Walter Tapper, Chairman ; Mr. Halsey Ricardo, Vice-Chairman ; and Messrs. F. R. Hiorns and Michael Waterhouse, Honorary Secretaries.

A programme for the continuation of visits to buildings was arranged for, including : Westminster Hall (restoration of roof) ; the new County Hall ; some of Wren's City Churches ; Messrs. Selfridge's new premises ; the Port of London Authority Building ; Hampton Court ; and the Pensions Building at Acton. These visits have become increasingly popular, and such large numbers have recently attended them that it has been necessary to restrict the number to what is agreed to be conveniently practicable in each case. The

* One candidate in each of these Examinations was not a British subject, but took the Examination for the purpose of obtaining a certificate to that effect.

† Students from Recognised Schools who received exemption from the Final Examination, having satisfied the Examiners in the subject of Professional Practice.

ANNUAL REPORT OF THE COUNCIL

roof of Westminster Hall being of unusual architectural importance, particulars of the work done to secure its preservation were, by the courtesy of Sir Frank Baines, published in the Institute JOURNAL. Visits to the Works of Art Craftsmen have also been arranged for, intended primarily for the younger members of the profession. Thanks are due to those who have provided facilities for these visits or have assisted with information those attending them.

The Committee has continued to watch the effect of the formation of arterial roads on the amenities of the countryside ; and in connection with certain possibilities affecting open spaces in London Squares, nominated the President, Professor F. M. Simpson and Professor S. D. Adshead to represent the Institute on the joint Committee dealing with the matter.

Early in the Session the Committee became aware that the Croydon Borough Council was promoting a Bill in Parliament that involved destruction of the Elizabethan Whitgift Hospital at Croydon. It at once convened a conference with other bodies interested in the preservation of the building, with the result that the co-operation of fifteen or more of these was secured. The joint Committee, and others interested, eventually attended before the Ministry of Transport to urge the case for preservation of the building, led by the Archbishop of Canterbury and Sir Aston Webb. The deputation was sympathetically received, but a decision on the matter must now be fought out in Parliament, and the joint Committee is closely following up the course of events with a view to, if possible, defeating the Croydon Borough Council's Bill.

The Art Committee has also considered the threatened destruction of one of Philip Webb's houses (No. 1, Palace Green, Kensington), and, in view of that possibility, has taken steps to have the building properly recorded, with the assistance of the Architectural Association School. There now appears some possibility of the house being preserved.

The Committee is, moreover, interesting itself in the case of Strand-on-the-Green, Chiswick, the picturesque reach of the Thames which a proposed new barrier wall and railing along the bank, and other changes, threaten to spoil. An offer to afford advice on the matter has been made to the Chiswick Urban District Council.

On the important question of the new Thames Bridge, the Committee has prepared a report for consideration by the Institute Council, reviewing the general position and advocating the greater claims of a new foot and general traffic bridge in the neighbourhood of Charing Cross rather than one near St. Paul's. The Committee has also expressed its general support of the attitude adopted by the London Society on this question.

It has, moreover, supported a suggestion made by Mr. H. B. Creswell that a register of individual craftsmen should be kept at the Institute, but the recommendation was not adopted by the Council.

The question of the threat to certain of the City churches (including many built by Wren) having recently been revived, the Committee has nominated three members of the Institute to serve on the joint Commission originally formed by Sir Aston Webb to oppose any tampering with these buildings. Their entire preservation is regarded as of the highest importance.

The proposal of Mr. W. W. Scott-Moncrieff for the holding of periodical Exhibitions of Architecture and the supplementary Arts has been referred to the Committee, which is considering the matter, together with other suggestions for promoting greater co-operation between artists concerned in the building crafts and for encouraging more general appreciation by the public of the Art of Architecture.

The Committee's representatives on the Wren Commemoration Committee have continued to take a share in the deliberations of that body, and it is hoped that the prominence given to the life and work of the greatest of English architects will not only enhance the repute of Wren but also increase the regard to be paid to Architecture by the public.

The Art Committee accordingly views with satisfaction the increasing notice that Architecture and the Allied Crafts is receiving from the Press, and the consequent stimulated interest in this important aspect of life.

The Committee has recommended the Council to approach the London County Council with a suggestion that it should take steps to obtain powers to control street advertising generally, including the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

use of flashing and other illuminated signs upon the exterior of buildings and the disfiguring apparatus connected therewith.

List of attendances (7 meetings) :—

	No. of Attendances.		No. of Attendances.
Professor S. D. Adshead	6	L. H. Bucknell	2
Walter Cave	3	Cyril A. Farey	4
Ralph Knott	0	Percy W. Lovell	3
H. V. Lanchester	2	T. S. Tait	2
Sir Edwin Lutyens	0	Michael Waterhouse	3
Professor C. H. Reilly	0	Arthur Welford	6
Halsey Ricardo	4	W. R. Davidge	3
Professor A. E. Richardson	0	H. P. Burke Downing	3
Professor F. M. Simpson	4	C. Lovett Gill	0
William Walcot	0	F. R. Hiorns	5
		Walter Tapper	4

REPORT OF THE LITERATURE STANDING COMMITTEE

Since the issue of the last Report the Literature Standing Committee have held nine meetings.

The following officers were elected to serve during the session : Mr. Alfred Gotch, Chairman ; Mr. Henry M. Fletcher, Vice-Chairman ; Mr. W. Henry Ward, Mr. Martin Briggs, Hon. Secretaries.

Public Lectures.—At an early period of the session the question of again arranging a series of Public Lectures, which had been so successful during the previous two years, was considered. With the consent of the Council it was decided to continue the series, but to ho'd them earlier in the year than on the previous occasions. The Committee were successful in securing the services of a distinguished list of lecturers, to whom the most cordial thanks of the Institute are due. The series was carried out as follows :

Thursday, 22 February.—Sir Ryland Adkins, K.C., M.P., F.S.A. “Architecture and the Countryside (A Layman’s Questions).”

Thursday, 1 March.—Mr. J. Alfred Gotch, F.R.I.B.A., F.S.A. “A Note on the Life of Sir Christopher Wren.”

Thursday, 8 March.—Mr. Walter Bayes, A.R.W.S. “Painting and Architecture.”

Thursday, 15 March.—Mr. H. S. Goodhart-Rendel. “Architecture—a Necessity or a Luxury ?”

Wednesday, 21 March.—The Right Hon. Lord Sumner of Ibstock, G.C.B., P.C. “The Public and the Architect.”

Exhibition of Modern Architecture.—The Council having requested the Committee to nominate three members to serve on the Exhibition Committee, Mr. Henry M. Fletcher, Mr. W. Henry Ward, and Mr. H. C. Bradshaw were appointed representatives.

Although a list of the donations is included in the Librarian’s Report, the Committee would especially wish to express their thanks to Mrs. Favarger for the presentation of the valuable collection of books which formed the Library of the late Mr. Henri Favarger [F.], which contained numerous rare volumes not hitherto in the Institute collection. A complete list of the presentations was published in a supplement to the Journal on January 29.

Another valuable acquisition was the presentation by Mr. E. H. New of a series of his prints of Oxford Colleges and views of London and Florence. Among the important purchases during the year may be included an especially fine copy of Kip’s *Nouveau Théâtre de la Grande Bretagne* and a volume of seventeenth century drawings by J. Gentilliatre.

R.I.B.A. Charter and By-laws.—The Committee were invited by the Council to make suggestions for the amendment of the By-laws 50–56, which deal with the Institute Standing Committees. The question was carefully considered by the Committee, who finally decided not to make any recommendations in the matter.

Pamphlet on Professional Practice.—Mr. C. Harrison Townsend was nominated by the Committee to assist the Practice Standing Committee in the final preparation of a pamphlet explanatory of the necessity of an architect and describing his duties, which it is proposed to issue to persons interested in building.

Wren Bicentenary.—The Committee having been invited by the Council to nominate four members to serve on the Sir Christopher Wren Bicentenary Committee, Mr. H. M. Fletcher, Mr. W. H. Ward, Mr. Stanley Ramsey and Mr. Arthur Stratton were appointed.

ANNUAL REPORT OF THE COUNCIL

The Librarian reports to the Committee as follows :—

During the twelve months ending 31 March of the present year 320 volumes and 32 pamphlets have been added to the Library, exclusive of periodicals, reports and transactions of societies, and parts of works issued in serial form.

The number of works presented was 208 volumes and 23 pamphlets.

Works purchased numbered 112 volumes and 9 pamphlets, of which 61 volumes were added to the Loan collection.

The attendance of readers in the Reference Library numbered 8,156. The number of books issued on loan was 3,708. The number of tickets issued for admission to the Library other than to members of the Institute or to Students and Probationers was 192.

The number of books issued through the post was 420.

The principal donation of books during the year was the Architectural Library of the late Mr. Henri Favarger [F.], presented by Mrs. Favarger in memory of her late husband.

The principal acquisitions of drawings and engravings were :

Two portfolios of sketches of Indian architecture by James Fergusson, presented by Mr. Hallam Murray.

Three drawings by John Ward, presented by Mr. Andrew Oliver [A].

Twenty-two engravings of the Oxford Colleges, Port of London and Florence, by E. H. New, presented by Mr. New.

Fifty sheets of the London Topographical Society's reproductions of old maps of London, presented by Miss E. A. Barker.

Among the volumes purchased may be mentioned : Aldridge, *Supplement to "The Case for Town Planning"*; American Competitions, Vol. 3; Beaucamp, *La Flandre et l'Artois*; Borrmann, *Aufnahmen mittelalterlicher Wand- und Deckenmalereien in Deutschland unter mitwirkung von H. Kolb und O. Vorlaender*; Caroe, *Wren and the Tom Tower, Christchurch, Oxford*; Capart, *L'Art Egyptien—I. L'Architecture*; Contet, *Ferronnerie Ancienne*, Series 5; and *Les vieux hôtels de Paris*, Series 14; Döhring, *Budhistische Tempelanlagen in Siam*, 3 vols.; Doncaster Housing Scheme Report; Du Cerceau, *Livre d'architecture*, fo. Paris, 1648; Fairbridge, *Historic Houses of South Africa*; Gerkan, *Theatre von Priene*; Gromort, *Italian renaissance*, translated by G. Waters, and *Jardins d'Italie*; Hessling, *Documents de Style Empire*, *Le luminaire*, and *Documents de Style Empire*, *Orfèvrerie et horlogerie*; Hegeman and Peet, *Civic Art*; Hind, *Wenceslaus Hollar and Piranesi*; Jackson, *Renaissance of Roman Architecture*, 2 vols.; Jaggard and Drury, *Architectural Building Construction*, 2 vols.; Jourdain, *English Decoration and Furniture of the later Eighteenth Century*; Kip, *Nouveau Théâtre de la Grande Bretagne*, 3 vols. in 4, fo. Lond., 1714-16; Langlois, *Les hôtels de Clisson, de Guise et de Rohan Soubise au Marais*; Lethaby, *Form in Civilization*; London Society, *Map of London*; Moxon, *Mechanick exercises*, 3rd edition, 1703; Perks, *History of the Mansion House*; Ramsey and Harvey, *Small Houses of the Late Georgian Period*, Vol. 2; Royal Commission on Historical Monuments, Essex, 2 vols.; Sabine, *Collected Papers on Acoustics*; Sluyterman, *Old Interiors in Holland*; Theophilus, *Arts of the Middle Ages*; Tilley, *Medieval France and Modern France*, 2 vols.

REPORT OF THE PRACTICE STANDING COMMITTEE

Since the publication of the last report the Committee have held 11 meetings.

The attendance of Members at the 7 Meetings of the Committee this Session has been as follows :—

	No. of Attendances.		No. of Attendances.
Henry V. Ashley	6	Arthur Keen	3
Max Clarke	6	T. R. Milburn	3
G. Scott Cockrill	6	Sydney Perks	6
A. O. Collard	5	W. Gillbee Scott	3
Horace Cubitt	6	J. Douglas Scott	7
H. V. Milnes Emerson	7	John Slater	7
G. Topham Forrest	0	Digby L. Solomon	4
Percival M. Fraser	6	Harry Teather	5
William G. Hunt	7	H. A. Welch	5
Francis Jones	5	W. Henry White	7
Delissa Joseph	7		

The officers elected by the Committee are John Slater, B.A., Chairman; Francis Jones, Vice-Chairman; J. Douglas Scott and H. V. Milnes Emerson, Joint Honorary Secretaries.

The Charges and Contracts Sub-Committee were reappointed with additional members; Chairman, W. Henry White, with J. Douglas Scott as Honorary Secretary.

Other Sub-Committees have been appointed to deal with :—

(a) Charter and Bye-Laws.—Max Clarke, Sydney Perks, W. Gillbee Scott.

(b) Suggestions for Professional Conduct.—Henry V. Ashley, Horace Cubitt, Delissa Joseph, Arthur Keen, Sydney Perks, Digby L. Solomon, Herbert A. Welch.

(c) Architects' Charges for Housing by Speculative Builders.—Henry V. Ashley, Horace Cubitt, Herbert A. Welch, T. R. Milburn, Francis Jones.

(d) Pamphlet on the Services of Architects.—Henry V. Ashley, A. O. Collard, Horace Cubitt, Francis Jones, J. Douglas Scott, W. G. Hunt.

(e) Rendering the R.I.B.A. of Greater Service to Country Members.—G. Scott Cockrill, Sydney Perks, Harry Teather.

(f) Amendment of Law on Ancient Lights.—Max Clarke, W. G. Hunt, Delissa Joseph, T. R. Milburn, Sydney Perks.

(g) Regulations of the Metropolitan Water Board.—Max Clarke, G. Scott Cockrill, Percival M. Fraser.

Reports on subjects *a* and *b* have been considered by the Committee and recommendations thereon made to the Council. The work of the other Sub-Committees is well advanced, and it is expected that their

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

reports will shortly be in the hands of the Committee, who hope to be able to submit recommendations to the Council before the end of the Session.

The following Members of the Committee were appointed to the Sub-Committee on Building Bye-Laws set up by the Council :—A. O. Collard, G. Scott Cockrill, Horace Cubitt, and T. R. Milburn.

Housing.—The Housing Sub-Committee were not reappointed this Session, as four Members of the Committee were appointed to the new Housing Committee set up by the Council. Joint meetings have been held between the Committee and Housing Representatives from the Allied Societies. Two Members of the Committee, Mr. Francis Jones and Mr. Herbert A. Welch, with Mr. H. T. Buckland, were appointed by the General Body R.I.B.A. as delegates to confer with the Ministry of Health on the question of fees for abandoned work, and they reported progress from time to time to the Committee, who supported their action. Their efforts were successful in coming to an agreement on this difficult subject, resulting from which G.H.M. No. 61 was drawn up and published ; subsequently these gentlemen were appointed the Tribunal for advising as to the amount of fees due to Architects in connection with the assisted Housing Schemes. This Tribunal is still pursuing its duties to the benefit of the profession, whose thanks are due to these three gentlemen for the immense amount of trouble they have taken in effecting a settlement with the Ministry.

Pamphlet on the Services of Architects.—The Sub-Committee have held several meetings and have drafted the suggested matter and form which such a pamphlet should take. The Committee requested the Literature Standing Committee to appoint one of their Members to collaborate with the Sub-Committee, and Mr. C. Harrison Townsend has been so appointed. The subject, together with the Committee's suggestions, is being further considered by the Sub-Committee.

Architects as Limited Liability Companies.—This question was fully considered by the Committee, who obtained the views of kindred professional Societies on the matter. The Committee advised the Council that they considered it undesirable for members of the R.I.B.A. to form themselves into Limited Liability Companies for the purpose of carrying on the profession of an Architect.

Home Office Regulations for Buildings.—The Committee had under consideration the draft Regulations dealing with scaffolding plant and machinery used in the construction, alteration, repair or demolition of buildings which the Secretary of State proposed to make in giving effect to the recommendations made in 1907 by a Departmental Committee and further considered in 1919 by the Joint Industrial Council for the Building Trade, who agreed in advocating these Regulations. The Committee considered the proposed Regulations unnecessary, many impracticable and useless, whilst their adoption would only increase the cost of building. The Committee also had before them the opinion of the builders' organisations, which were also opposed to the setting up of these Regulations. The Committee recommended the Council that should a public inquiry be held as the result of objections to these Regulations the R.I.B.A. should be represented.

Professional Conduct, Charges and Practice.—The Committee have dealt with several cases of alleged unprofessional conduct and questions of etiquette between Architects, and where necessary have made recommendations to the Council.

The Committee, on the recommendations of the Charges and Contracts Sub-Committee, have given advice to members and public bodies on questions of appropriate fees chargeable in respect of abandoned works and other matters. The Committee desire to emphasise the desirability of Architects acquainting their Clients at the earliest opportunity with the R.I.B.A. Scale of Charges to avoid their accounts being afterwards disputed, as the Law Courts do not recognise our Scale as binding unless it has been brought to the Client's notice and agreed beforehand, and they will usually only award payment for services rendered on the basis of *quantum meruit*, although no doubt the R.I.B.A. Scale would be taken into consideration in determining this amount. These inquiries have occupied a great deal of the Committee's time, but their confidential nature precludes any detailed reference. In accordance with their established practice, the Committee give no opinion on matters *sub judice* or on *ex parte* statements.

ANNUAL REPORT OF THE COUNCIL

Many questions of Professional Practice have been answered, and where these appear to be of general interest a résumé has been sent to the JOURNAL for publication, but the Committee, whilst they are pleased to be of service to their brother Architects, cannot help expressing surprise at the elementary nature of many of the inquiries they receive, and suggest to the Council the advisability of making some recommendations to the Board of Architectural Education on the subject. It is of interest to note that inquiries have reached the Committee from places as distant as Singapore and South Australia.

Trade Circulars and Cards.—The Committee have dealt with several cases where trade circulars offering commission or discounts have been sent to Architects, and upon pointing out the impropriety of such offers the firms have undertaken not again to offend against our code of professional conduct in this way. The Committee have also dealt with cases where Members and Licentiates representing Trading Firms have used their R.I.B.A. affix on their trade cards ; this is considered undesirable and incompatible with the dignity of the profession. The Committee have in all cases obtained promises from the members concerned to discontinue this practice.

REPORT OF THE SCIENCE STANDING COMMITTEE

Since the date of the last Annual Report of the Science Standing Committee the number of meetings held has been 10. The average attendance was 10.

The Officers were elected as follows:—H. W. Burrows, F.G.S. [A.] (Chairman), W. E. Vernon Crompton [F.] (Vice-Chairman) ; J. Ernest Franck [F.], Charles Woodward [A.], (Hon. Secs.).

Architectural Acoustics.—The Council of the Royal Institute of British Architects have for some time had this subject under consideration, and in July last drew the attention of the Committee thereto, asking them if possible to make experiments to further determine some of the laws which govern sound in relation to buildings.

The Committee approached the Building Research Board asking if the Board, in conjunction with the Science Standing Committee, would be willing to make experiment on materials other than those which have already been tested in America.

A considerable amount of work on the absorption of sound by building and other materials has been carried out in America by Professor Wallace Clement Sabine, and his son, Professor Paul E. Sabine, is conducting further experiments on the lines initiated by his father.

The Committee have received every assistance from Mr. H. O. Weller, Director of Building Research, who has asked that certain architectural problems of acoustics shall be placed before him.

The Committee suggested that Mr. Hope Bagenal [A.], who has made a special study of architectural acoustics, might be associated with any work carried out by the Department of Scientific and Industrial Research, and it is understood that, with regard to experiments now to be conducted on the absorption of sound by building materials, Mr. Hope Bagenal will represent the Institute.

It is the aim of the Committee to produce a small brochure on this subject :—Firstly, to collate the experimental work already done, both in America and in this country ; and secondly, to lay down, if possible, some principles to guide Architects upon the planning, construction and decoration of buildings for their acoustical properties, having regard to the purposes for which they are intended.

Through the good offices of Mr. Bertram G. Goodhue, the Committee have received information upon some novel materials used by American Architects in churches recently built in New York City and elsewhere ; samples of those materials have been before the Committee for inspection.

The Committee note from time to time that leaders in *The Times* have dealt with Architectural Acoustics. The Secretary of the Institute has written to *The Times* pointing out that this matter has long engaged the attention of this Committee and is still being dealt with by them, but that proper investigation of this matter necessarily takes a considerable time before definite data can be obtained.

Disease in Timber.—The Committee received permission from Professor Malcolm Wilson, of the University of Edinburgh, to publish his valuable paper on “The Blueing of Coniferous Timber.” This

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

was duly published in the Institute JOURNAL on 23 December 1922, and the Committee wish to draw special attention of members to the two concluding paragraphs of that Paper.

The Committee have received a request from the Department of Scientific and Industrial Research for the assistance of Architects to determine, if possible, the wastage of timber in this country. The Department would be pleased to receive from members of the Institute any information they may have as to the annual replacement of timber in buildings which has been necessitated by decay from Dry-Rot or other fungus, or from insects. Should any member consider the amount of timber that has been replaced under his direction in any one year of small amount, it is to be remembered that the aggregate total of replacement work carried out under the supervision of members may amount to a considerable value and be of great assistance to the Committee and to the Department of Scientific and Industrial Research.

With reference to the investigation regarding Home-grown Timber, it is hoped that any members who have information which they would wish the Committee to place before the Forestry Commission will forward it to the Secretary of the Institute.

Home Office Regulations.—The Committee considered the draft Regulations which H.M. Secretary of State proposed to make in pursuance of the powers conferred on him by Section 79 of the Factory and Workshop Act, 1901, in respect of all buildings in course of construction, alteration, repair, or demolition, to which the provisions of this Act apply, and reported thereon to the Council as follows :—

1. The Committee agreed that Regulations which have the effect of protecting life are most desirable.
2. The Regulations should state definitely—and in large print at the commencement—"The Class of Buildings to which the Regulations are limited," or alternatively, "The Class of Buildings to which the Regulations apply."
3. The Committee think that the method of supervision is a matter on which suggestions might be received by the Home Office.
4. The Regulations should be so drafted as to express principles, and should not deal with details.
5. The Regulations as drafted would prevent the use of forms of scaffolding or temporary plant other than those specifically mentioned in the proposed Regulations.

The Committee have not yet received any intimation from the Council that a public inquiry will be held, but whether or no such inquiry is held the representations of the Institute will doubtless be considered by H.M. Secretary of State.

NOTE.—It would appear that these Regulations would apply to buildings where power and machinery are used temporarily.

Regulations for Reinforced Concrete.—The Regulations on Reinforced Concrete, proposed by the Liverpool Corporation, were submitted by the Council to the Committee, who after careful consideration suggested to the Council that they should disagree with the proposed Regulations on several grounds.

The London County Council have, it is understood, further prospective rules in view, which would only be made after full discussion by the Institution of Civil Engineers, the Royal Institute of British Architects, the Surveyors' Institution, and the Institution of Structural Engineers ; and further, the Committee think that any proposed Rules should provide for variations to allow of economical designs for special cases and for new developments in methods of construction.

Silicosis amongst Stonemasons.—The Safety and Welfare Committee of the Industrial Council for the Building Industry forwarded a report on Silicosis amongst Stonemasons to the Council, who referred the matter to this Committee.

The recommendation referred to expressed the desirability of paying compensation to Stonemasons under the Workmen's Compensation (Silicosis) Act, 1918.

The Committee reported to the Council that they consider the causes of this disease should be dealt with, and if possible avoided, rather than that compensation should be paid for its effects, but that if the

ANNUAL REPORT OF THE COUNCIL

data prove what they purport to show, then the Committee agree with the recommendation as a temporary measure.

Atmospheric Corrosion of Non-Ferrous Metals.—A Joint Committee of the Royal Institute of British Architects and the Institute of Metals is engaged upon researches into the decay of brass and like fittings used in buildings as a branch of an Association under the Industrial Research Department.

Mr. Alan E. Munby, as Chairman of this Committee, has presented a long Interim Report prepared by Mr. Vernon, who is the Committee's full-time Research Investigator. Plates of brass, copper and other metals have been exposed to various atmospheres in different conditions as to surface finish and the corrosion estimated by weighing and loss in reflecting power. The research is proceeding and will take some years to complete, and the publication of the results in detail is a matter for the main Association and the Department, but it is hoped shortly to send to the Press a brief *résumé* of what has been so far achieved. Investigation has already indicated that very slight differences in composition have a marked effect upon corrosive action.

Home Office Committee on Industrial Paints and Painting.—The Home Office Committee appointed by the Home Secretary to report on the above matter has now completed its report.

This Committee was charged to consider the recommendations of the Geneva Convention in the use of white lead, and has examined a large number of witnesses and gone into the matter in great detail in the light of medical, statistical and industrial evidence. The report is now before Parliament, and pending approval of the recommendations is confidential. Subject to acceptance, it will be shortly obtainable from H.M. Stationery Office and may be expected to exercise a great influence upon the paint industry and the painters' trade. Mr. Alan E. Munby has represented the architectural profession upon the Committee.

Jointless Flooring.—The Committee some three years since asked the Building Research Board if they would undertake an investigation of this subject, and as the result of that request they have just received a communication from Mr. H. O. Weller, Director of Building Research, who states that he has been successful in this inquiry. A magnesite cement which is non-corrosive of metals, and incidentally is claimed to be much more resistant to ordinary wear and tear than any other form of magnesite floor, has been found, and is now in process of perfection.

Portland-Blastfurnace Cement.—The Sub-Committee of the British Engineering Standards Association which was set up to consider the separate standard specification of "Iron Portland Cement," on which Mr. Max Clarke represented the Royal Institute of British Architects, has recently finished its labours. The specification is complete, has been handed over to the Main Committee, and it is hoped will be shortly published under the title "Portland-Blastfurnace Cement."

The value of the new specification lies in the implied assurance given by the B.E.S.A. that this economical substitute for ordinary Portland Cement, possessing as it does certain special qualities but liable to confusion with the mere "slag cements" of the Continent, may be as safely used as any other material for which a British Standard Specification has been issued.

Portland-Blastfurnace Cement, under two well-known trade names, has been manufactured in Scotland for some years : it is hoped that under the protection of this new Standard Specification English iron-masters will set up the plant to use their slag in making the same material.

List of Attendances (8 meetings).

H. Percy Adams	○	Alan E. Munby	2
Robert J. Angel	4	W. A. Pite	2
H. W. Burrows	8	S. B. Russell	0
W. E. Vernon Crompton	4	Harvey R. Sayer	8
C. A. Daubney	6	H. D. Searles-Wood	5
J. E. Dixon-Spain	3	Herbert Shepherd	5
E. Fiander Etchells	2	Professor R. Elsey Smith	3
J. Ernest Franck	7	Raymond Unwin	3
Francis Hooper	7	T. F. H. White	0
J. H. Markham	4	Charles Woodward	7
Albert W. Moore	○		

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

REPORT OF THE COMPETITIONS COMMITTEE

Since the publication of the last Annual Report the Committee have met on seven occasions. The attendance of Members of the Committee during the Session has been as follows :—

	No. of Attendances.		No. of Attendances.
Abercrombie, Professor Patrick	.. .. 0	Newman, F. Winton	.. .. .. 5
Ansell, W. H.	.. .. .. 5	Pite, William A.	.. .. .. 6
Ashley, Henry V.	.. .. .. 6	Rees, T. Taliesin	.. .. .. 1
Elkington, G. Leonard	.. .. .. 2	Scott, J. Douglas	.. .. .. 5
Guthrie, L. Rome	.. .. .. 5	Warwick, Septimus	.. .. .. 6
Harris, E. Vincent	.. .. .. 0	Welch, Herbert A.	.. .. .. 5
Keen, Arthur	.. .. .. 2	Wilson, W. G.	.. .. .. 4
Lanchester, H. V.	.. .. .. 3	*Woodward, Frank	.. .. .. 2

* Appointed 6 November 1922.

The Officers of the Committee have been as follows : Chairman, Mr. W. G. Wilson [F.] ; Vice-Chairman, Mr. W. A. Pite [F.] ; Joint Hon. Secretaries, Mr. Henry V. Ashley [F.] and Mr. Herbert A. Welch [A.].

The Committee regret the resignation of Mr. R. Mountford Pigott, which took place at the end of the Session 1921–1922.

During the period under review the Committee have dealt with 27 Competitions. Out of this number there have been some cases where the Committee had approved the conditions previously but were required to give rulings in matters arising out of the carrying out of the Conditions.

Seven Competitions have been banned at the request of the Committee ; out of that number in one case the promoters revised the Conditions to the Committee's satisfaction. In six cases long negotiations with the promoters were necessary in order to secure a proper set of conditions ; out of this number, in one instance the attitude of the promoters was such as to necessitate the refusal of the Assessor to act.

During the period under review it has been noted with satisfaction that there is a growing tendency on the part of promoters to appoint qualified Assessors before the issue of Competition Conditions.

The Auckland War Memorial Competition.—The Committee in April 1922 cabled the New Zealand Institute of Architects, pressing for an extension of the time allowed for sending in designs so as to place competitors in Great Britain on an equal footing with those in Australia and New Zealand. As a result, British competitors were allowed to deliver their designs at the R.I.B.A. up to 30 June 1922 instead of being compelled to despatch them so as to reach Auckland by that date.

Australian Parliament Buildings, Canberra.—The unsatisfactory attitude of the Australian Government in failing to adhere to the spirit of its promises, made on various occasions between 1914 and 1917, to promote an open Competition for the proposed Parliament Buildings at Canberra, has received the attention of the Committee. They have strongly supported the efforts of the Federal Council of the Australian Institutes of Architects to secure the fulfilment of the Government's promises in this matter, and have recommended the Council of the R.I.B.A. to support the Australian Federal Council financially if the latter were satisfied that they had a legal remedy in a Court of Law. The Council approved this recommendation on 19 March 1923, and have informed the Federal Council in Australia that they will afford financial assistance, if necessary, up to the sum of £105.

Death of the Winner of a Competition.—An unusual position recently arose owing to the death of the author of the winning design in an Open Competition. The award was made and the envelopes were opened six days before the death of the architect in question ; but the official notification of the award only reached the architect's office on the day after he died. The practice had been bequeathed to his two assistants, and the Assessor consulted the Committee as to their legal claim to be appointed to carry out the work.

The Committee expressed the opinion that the two assistants in question had no legal but a very strong moral claim for such appointment, and that if this course were, for any reason, not adopted, then

ANNUAL REPORT OF THE COUNCIL

the architect placed second should be appointed in accordance with Clause D of the R.I.B.A. Regulations, which was part of the Conditions of this Competition.

The Sub-Committee.—The Sub-Committee have met on five occasions during the Session in conference with members of the Society of Architects. Their recommendations for the revision of the R.I.B.A. Regulations for Architectural Competitions are now completed. They have also prepared a set of Model Conditions for the guidance of promoters.

Ryde Pavilion Competition.—The Conditions of the Ryde Pavilion Competition were not in accordance with the Regulations, and the promoters having declined to make the necessary modifications the warning notice was issued.

Two members of the Royal Institute jointly entered for the Competition and obtained the first premium, but on the Council calling their attention to their position in the matter they withdrew from the Competition and returned the premium.

REPORT OF THE TOWN PLANNING COMMITTEE

Sir Aston Webb, P.R.A., was reappointed Chairman of the Committee, Professors S. D. Adshead and Beresford Pite Vice-Chairmen, and Messrs. W. R. Davidge and C. H. B. Quennell Joint Hon. Secretaries.

A Special Housing Committee, under the chairmanship of Sir Aston Webb, has been formed, consisting of six members nominated by the Town Planning Committee, four by the Council, four by the Practice Committee, and six by the Conference of Presidents of Allied Societies, to consider the future housing policy, and representations have been made to the Ministry of Health as to the necessity for encouraging private enterprise and also as to the employment of architects in all schemes in accordance with the spirit of Section 1 of the Housing, Town Planning, etc., Act, 1919.

Evidence was given before the Royal Commission on London Government on behalf of the Institute by Sir Aston Webb, Professor Adshead, Major Harry Barnes and Mr. W. E. Riley, recommending that a plan be prepared for the development of Greater London, laying down the lines of all proposed new roads and widenings, building lines, localities for residential and industrial areas, open spaces, etc.

The Committee also again considered the question of Higher Buildings in London, and confirmed the view previously expressed that the present limits of height are sufficient.

A Sub-Committee on Arterial Roads was appointed to consider and report with special reference to the need for the early construction of further arterial roads in the neighbourhood of London in addition to those already constructed by the Ministry of Transport, and the matter is still under the consideration of the Committee. The Committee are of opinion that much useful work may be done by the formation of local Committees to secure the improvement and amenities of particular roads or lengths of road, by taking advantage in each case of the natural features—village greens, trees, ponds, and wayside strips of grass, and making the highways of the country as attractive and beautiful as possible.

Whitgift Hospital.—The proposal of the Croydon Borough Council to promote a Bill for the acquisition and demolition of the Whitgift Hospital was considered, and it was resolved to co-operate with the Art Standing Committee in arranging a conference of all interested bodies with a view to joint action in securing the retention of this ancient building.

London Squares.—The Committee has been represented on a joint Conference of representatives of various Societies called by the London Society to consider measures for the protection of the London Squares and to approach the London County Council with a view to secure the permanent preservation of these open spaces.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Income and Expenditure Account of Ordinary Funds for the Year ending 31st December 1922.

Dr.	EXPENDITURE.	Exclusive of Subscriptions in advance.	Cr.
To ORDINARY EXPENDITURE—			
Rent	£ s. d.	£ s. d.	
Rates and Taxes	87 6 10	1081 11 2	
Interest on Mortgage	826 4 7	1995 2 7	
Gas and Electric Lighting		193 3 0	
Fuel		95 3 0	
Salaries	5424 15 5		
Gratuities to Retiring Officials	700 0 0		
Pensions	125 0 0		
General Printing, Stationery, Stamps and Petty Expenses	2610 11 0		
General Meetings and Exhibitions	505 10 3		
Housekeeping and Wages	388 17 10		
Advertisements	57 15 9		
Examiners' and Moderators' Fees	198 9 0		
Structural Alterations and General Repairs	301 18 4		
Fire Insurance	93 0 11		
Medals and Prizes	157 7 0		
Grants—			
Franco-British Union	70 0 0		
Architects' Benevolent Society	100 0 0		
Conjoint Board of Scientific Societies	20 0 0		
Architectural Association	100 0 0		
Do. Endowment Fund	125 0 0		
Architects and Surveyors' Unemployment Insurance Society	25 0 0		
Board of Architectural Studies Cambridge	50 0 0		
British School at Rome	53 3 0		
Architectural Lectures, Oxford	30 0 0		
British Engineering Standards Association	5 0 0		
Library		578 3 0	
JOURNAL—		341 7 1	
Reporting	77 14 3		
Printing and Binding	2186 1 9		
Illustrations	135 16 3		
Postages and Carriage	1033 2 11		
KALENDAR—		3432 15 2	
Printing	422 19 7		
Postage and Carriage	98 0 6		
*Contributions to Allied Societies		521 0 1	
MISCELLANEOUS EXPENSES—		857 12 9	
American Exhibition	109 16 2		
Staff Insurance	201 3 2		
Cardiff Conference	200 13 6		
Telephone	54 8 7		
Annual Dinner	186 7 6		
French-British Union Dinner	35 17 6		
Industrial Council for Building Industry	35 14 0		
Rome Scholarship Examination	46 1 8		
Annual Election Enumerators	50 8 0		
Council Dinner Guests	90 4 9		
Architects' Welcome Club	101 17 5		
Presidents of Allied Societies	119 18 11		
Past President's Portrait	240 0 0		
Unification and Registration	118 15 11		
Colour Competition	34 2 10		
Housing Fees Deputation	121 19 3		
Conditions of Contract Conference	32 3 4		
Public Lectures	44 17 9		
Legal and Accountants' Charges	169 2 1		
Legal Expenses—			
re New Lease	53 17 2		
re Mortgage	605 19 0		
re Premises	76 7 4		
Hire of Rooms	56 14 0		
Overs seas Examinations	125 16 2		
Sundries	235 6 10		
R.I.B.A. War Memorial		3177 12 10	
Annual Charge for Fine payable at Renewal of Lease		436 9 0	
Surplus for Year		7 0 0	
		1173 7 11	
SAFFERY, SONS & CO., Chartered Accountants, £23372 1 11			
Examined with the vouchers and found to be correct. 11th April 1923. JOHN HUDSON [F.] ARTHUR W. SHEPPARD [I.] Hon. Auditors.			

Dr.	BALANCE SHEET of Ordinary Funds, 31st December 1922.	Cr.
To Sundry Creditors—		
LIABILITIES.		
Sundry	£ s. d.	£ s. d.
Mortgage Interest	1350 4 11	
Rent	39 9 0	
	23 5 6	
		1412 19 5
Mortgage on Freehold and Leasehold Property at 6 per cent.	20000 0 0	
Subscriptions received in advance	423 8 0	
Lient Francis Grissell— Legacy Fund	500 0 0	
Reserve for Fine payable on Renewal or Lease	7 0 0	
Surplus of Assets over Liabilities (subject to valuation of Premises and Realisation of Debtors and Subscriptions in arrear)	73512 6 1	
		£95855 13 6
By PREMISES as per last Balance Sheet	£ s. d.	£ s. d.
Freehold Additions, Maddox Street	86000 0 0	
		3000 0 0
		89000 0 0
Mortgage Redemption Policy		436 0 6
Investment (Grissell Legacy)— £526 8s. 1d. 5 per cent. War Loan at cost		500 0 0
Debtors—		
Rent, Advertisements and other	1108 8 11	
Due from Trust Funds	15 7 6	
Payments in Advance	125 0 0	
Subscriptions in Arrears for 1922 and previously		1248 16 5
Cash at Bank		1452 6 6
		3218 10 1
		£95855 13 6

NOTE.—A Fine of £7 per annum is payable in respect of 9, Conduit Street, under a Lease from the Corporation of the City of London. Notice of renewal must be given at Michaelmas, 1935, and the fine for 14 years of £98 paid.

SAFFERY, SONS & CO., Chartered Accountants, Examined with the vouchers and found to be correct. 11th April 1923. JOHN HUDSON [F.] ARTHUR W. SHEPPARD [I.] Hon. Auditors.

ANNUAL REPORT OF THE COUNCIL

Revenue Accounts of Trust Funds for the Year ending 31st December 1922.

Dr.

	£ s. d.	Cr.
ASHPITEL PRIZE FUND :—		
To Amount paid to B. T. Batsford	10 0 0	£ s. d.
To Balance carried forward.....	30 8 11	16 16 6
	<u>40 8 11</u>	<u>23 12 5</u>
ANDERSON AND WEBB FUND :—		
To Balance carried forward.....	93 4 2	£ s. d.
	<u>93 4 2</u>	<u>48 6 7</u>
ARTHUR CATES LEGACY :—		
To Balance carried forward.....	129 12 9	£ s. d.
	<u>129 12 9</u>	<u>86 6 8</u>
ARCHIBALD DAWNAY BEQUEST :—		
To Amount paid to E. U. Channon [A.]	50 0 0	£ s. d.
To Amount paid to C. H. Hutton	25 0 0	88 13 9
To Amount paid to D. J. A. Ross [A.]	50 0 0	By Balance from last Account
To Balance carried forward.....	122 17 11	159 2 2
	<u>247 17 11</u>	<u>247 17 11</u>
DONALDSON TESTIMONIAL FUND :—		
To Balance from last Account	1 6 2	£ s. d.
To Cost of Medal.....	2 7 6	2 9 4
	<u>3 13 8</u>	<u>1 4 4</u>
DONATION FUND :—		
To Balance carried forward.....	25 0 1	£ s. d.
	<u>25 0 1</u>	<u>20 18 5</u>
GODWIN BURSARY :—		
To Amount paid to C. B. Pearson [F.]	32 10 0	£ s. d.
To Balance carried forward.....	24 8 7	32 15 10
	<u>56 18 7</u>	<u>56 18 7</u>
GRISSELL LEGACY :—		
To Balance carried forward.....	24 14 2	£ s. d.
	<u>24 14 2</u>	<u>10 17 6</u>
OWEN JONES STUDENTSHIP :—		
To Amount paid to G. F. Quarimby	75 0 0	£ s. d.
To Amount paid to W. J. Knight [A.]	50 0 0	198 2 8
To Balance carried forward.....	179 10 8	By Balance from last Account
	<u>304 10 8</u>	106 3 0
PUGIN MEMORIAL FUND :—		
To Balance carried forward	46 15 1	£ s. d.
	<u>46 15 1</u>	<u>10 16 9</u>
SAXON SNELL BEQUEST :—		
To Amount paid to Lt. K. H. Read [A.]	5 0 0	£ s. d.
To Balance carried forward	83 18 6	28 13 2
	<u>88 18 6</u>	<u>88 18 6</u>
TITE LEGACY FUND :—		
To Balance from last Account	42 4 6	£ s. d.
	<u>42 4 6</u>	<u>26 6 3</u>
WIMPERIS BEQUEST :—		
To Amount paid to C. B. Pearson [F.]	32 10 0	£ s. d.
To Balance carried forward.....	22 14 3	20 15 10
	<u>55 4 3</u>	<u>34 8 5</u>
HERBERT BAKER SCHOLARSHIP FUND		
HENRY JARVIS STUDENTSHIP ACCOUNT :—		
To Amount paid to E. W. Armstrong [A.]	168 15 0	£ s. d.
To Balance carried forward	65 16 0	187 10 0
	<u>234 11 0</u>	<u>234 11 0</u>
HENRY JARVIS EX-SERVICE TRAVELLING STUDENTS' UPS ACCOUNT :—		
To Amount paid to 18 Students	610 0 0	£ s. d.
	<u>610 0 0</u>	<u>610 0 0</u>

SAFFERY, SONS & CO.
Chartered Accountants.

Examined with the vouchers and found to be correct. 11th April 1923. { JOHN HUDSON [F.] ARTHUR W. SHEPPARD [A.] } Hon. Auditors.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Balance Sheet of Trust Funds, 31st December 1922.

Dr.	Cr		
	£ s. d.	£ s. d.	£ s. d.
To ASHPITEL PRIZE FUND:—			
Capital—£305 1s. 8d. New South Wales 6 per cent. Inscribed Stock, 1930-1940 ..	317 5 9		
Revenue Investments—			
£76 8s. 11d. 4½ per Cent. War Loan	72 12 6	By Government and other Securities, being total of Trust Funds invested as valued	
£20 5 per Cent. War Loan	20 0 0	31st December 1922	17517 19 10
£10 5 per Cent. National War Bonds	10 12 0	By Cash at Bank	909 16 0
£20 4 per Cent. Funding Loan	17 4 0	Less due to Ordinary Funds	15 7 6
Balance at credit of Revenue Account	<u>30 8 11</u>		<u>894 8 6</u>
	458 3 2		
To ANDERSON AND WEBB FUND (Board of Architectural Education) :—			
Capital—£594 18s. 4d. New South Wales 6 per Cent. Inscribed Stock 1930-1940 ..	618 14 3		
£58 6s. New South Wales 4 per Cent. Inscribed Stock (1942)	48 19 6		
Revenue Investments—			
£58 6s. 4d. 4½ per Cent. War Loan	53 10 3		
£25 5 per Cent. War Loan	25 0 0		
£30 4 per Cent. Funding Loan	25 16 0		
£25 4 per Cent. National War Bonds	25 5 0		
£10 5 per Cent. National War Bonds	10 12 0		
Balance at credit of Revenue Account	<u>93 4 2</u>		
	991 1 2		
To ARTHUR CATES LEOACY FUND :—			
Capital—£1,160 North Eastern Railway 4 per Cent. Preference Stock	928 0 0		
Revenue Investments—			
£137 18s. 7d. 4½ per Cent. War Loan	131 0 7		
£50 4s. 11d. 5 per Cent. War Loan	50 4 11		
£100 5 per Cent. National War Bonds ..	105 12 0		
Balance at credit of Revenue Account	<u>129 12 9</u>		
	1344 10 3		
To ARCHIBALD DAWNAY BEQUEST :—			
Capital—£11,026 17s. 9d. 2½ per Cent. Consols	6119 18 5		
Revenue Investment—			
£54 19s. 7d. 2½ per Cent. Consols	302 9 3		
Balance at credit of Revenue Account	<u>122 17 11</u>		
	6545 5 7		
To DONALDSON TESTIMONIAL FUND :—			
Capital—£72 London and North Western Railway 4 per Cent. Consolidated Pre- ference Stock	57 12 0		
Revenue Investment—			
£12 4s. 7d. 4½ per Cent. War Loan	11 12 3		
Balance at debit of Revenue Account	<u>69 4 3</u>		
	1 4 4		
	67 19 11		
To DONATION FUND :—			
Revenue Investments—			
£76 8s. 11d. 4½ per Cent. War Loan	72 12 6		
£40 5 per Cent. War Loan	40 0 0		
400 War Saving Certificates	400 0 0		
Balance at credit of Revenue Account	<u>25 0 1</u>		
	537 12 7		
To GODWIN BURSARY FUND :—			
Capital—£1,030 Caledonian Railway 4 per Cent. Debenture Stock	854 18 0		
Revenue Investments—			
£25 5 per Cent. War Loan	25 0 0		
50 War Savings Certificates	50 0 0		
£40 5 per Cent. National War Bonds	42 8 0		
Balance at credit of Revenue Account	<u>24 8 7</u>		
	993 14 7		
To GRISSELL LEGACY FUND :—			
Capital—£20 0s. 8d. "B" Annuity G.I.P. Railway	325 10 10		
Revenue Investments—			
£20 7s. 8d. 4½ per Cent. War Loan	19 7 3		
£20 5 per Cent. War Loan	20 0 0		
£30 5 per Cent. National War Bonds	31 14 0		
Balance at credit of Revenue Account	<u>24 11 2</u>		
	421 6 3		
To OWEN JONES STUDENTSHIP FUND :—			
Capital—£2,128 Midland Railway 2½ per Cent. Debenture Stock	1106 11 2		
£1,247 Great Western Railway 5 per Cent. Consolidated Guaranteed Stock	1265 14 1		
Revenue Investments—			
£398 16s. 8d. 4½ per Cent. War Loan	378 17 9		
£44 6s. 4½ per Cent. War Loan	42 1 8		
£107 9s. 6d. 5 per Cent. War Loan	107 9 6		
50 War Savings Certificates	50 0 0		
£40 5 per Cent. National War Bonds	42 8 0		
£75 4 per Cent. National War Bonds	75 15 0		
Balance at credit of Revenue Account	<u>179 10 8</u>		
	3248 7 10		
Carried forward ..	£14531 1 4		
Carried forward ..	£18412 8 4		

ANNUAL REPORT OF THE COUNCIL

BALANCE SHEET OF TRUST FUNDS—*continued.*

Dr.	£ s. d.	Cr.
	Brought forward ..	14531 1 4
To PUGIN MEMORIAL FUND :—		
Capital—£1,070 London and North Western Railway 4 per Cent. Consolidated Preference Stock	856 0 0	
Revenue Investments— £15 9s. 9d. 4½ per Cent. War Loan..... £27 16s. 5 per Cent. War Loan	14 14 5 47 16 0	
£50 4 per Cent. Funding Loan	43 0 0	
£10 5 per Cent. National War Bonds....	42 8 0	
Balance at credit of Revenue Account	<u>46 15 1</u>	
	1050 13 6	
To SAXON SNELL BEQUEST :—		
Capital—£698 4s. New Zealand 3½ per Cent. Stock	565 10 10	
Revenue Investments— £204 10s. 4d. 4½ per Cent. War Loan.... £56 14s. 4d. 5 per Cent. War Loan..... £10 5 per Cent. National War Bonds....	194 5 9 56 14 4 42 8 0	
Balance at credit of Revenue Account	<u>83 18 6</u>	
	942 17 5	
To TITE LEGACY FUND :—		
Capital—£1,150 2½ per Cent. Consols	638 5 0	
Revenue Investments— £51 12s. 6d. 4½ per Cent. War Loan..... £61 4s. 6d. 5 per Cent. War Loan..... £30 5 per Cent. National War Bonds....	49 1 0 61 4 6 31 16 0	
	<u>780 6 6</u>	
Balance at debit of Revenue Account	<u>15 18 3</u>	
	764 8 3	
To WIMPERIS BEQUEST :—		
Capital—£1,024 18s. 8d. Metropolitan Water Board 3 per Cent. "B" Stock	636 4 0	
Revenue Investments— £202 3s. 5d. 4½ per Cent. War Loan.... £71 14s. 4d. 5 per Cent. War Loan..... £40 5 per Cent. National War Bonds....	192 1 3 71 14 4 42 8 0	
Balance at credit of Revenue Account	<u>22 14 3</u>	
	995 1 10	
To HENRY JARVIS STUDENTSHIP	65 16 0	
To HERBERT BAKER SCHOLARSHIP	<u>62 10 0</u>	
	<u>£18412 8 4</u>	

SAFFERY, SONS & CO.,
Chartered Accountants.

Examined with the vouchers and found to be correct. 11th April 1923. { JOHN HUDSON [F.] } ARTHUR W SHEPPARD [A] } Hon. Auditors.

The Council submit a rough Estimate of Income and Expenditure of Ordinary Funds for the year ending 31st December 1923 :—

ORDINARY EXPENDITURE	£ s. d.	ORDINARY INCOME	£ s. d.
Rents, Rates and Taxes, &c.....	2000 0 0	Subscriptions, Fees and Arrears (Paid).	15000 0 0
Gas and Electric Lighting.....	200 0 0	Entrance Fees	700 0 0
Fuel.....	100 0 0	Sale of Publications	1500 0 0
Salaries.....	5650 0 0	Advertisements	1250 0 0
Staff Pensions.....	300 0 0	Examination Fees	1700 0 0
General Printing, Stationery, Stamps and Petty Expenses.....	2600 0 0	Use of Rooms	1040 0 0
General Meetings and Exhibitions	600 0 0	Dividend on Crissell Legacy.	20 0 0
Housekeeping and Wages	400 0 0		
Advertisements	60 0 0		
Examiners' and Moderators' Fees	160 0 0		
General Repairs	300 0 0		
Fire Insurance	95 0 0		
Medals and Prizes	225 0 0		
Grants	410 0 0		
Library	350 0 0		
The JOURNAL	3500 0 0		
The KALENDAR	550 0 0		
Contributions to Allied Societies	950 0 0		
Presidents of Allied Societies	140 0 0		
Legal and Accountants	200 0 0		
Miscellaneous, including the following	£ s. d.		
President's Portrait	210 0 0		
Conditions of Contract Conference	50 0 0		
Council Dinner Guests	100 0 0		
Interest on Building Loan	250 0 0		
Telephone	50 0 0		
Edinburgh Conference	200 0 0		
Annual Dinner	200 0 0		
Travelling Expenses of Country Members of Council	50 0 0		
Rome Scholarship Examinations	50 0 0		
Australian Parliament Buildings Competition	105 0 0		
Annual Election Enumerators	50 0 0		
Public Lectures	50 0 0		
Wren Bicentenary Celebration	200 0 0		
Overseas Examination	130 0 0		
Sundries	300 0 0		
	1995 0 0		
Annual Charge for Fine payable at Renewal of Lease	7 0 0		
Estimated Surplus	<u>258 0 0</u>		
	<u>£21250 0 0</u>		

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

REPORT OF THE HON. AUDITORS FOR 1922

We have carefully examined the books and checked the various items therein with the accounts and vouchers for the year 1922, together with the various share certificates held by the Institute and the list of share and scrip certificates deposited at the bank, all of which were found to be in order and to agree with the balance sheet prepared by the accountants.

It is very satisfactory to note that the income for 1922 amounted to £23,372 1s. 11d., an increase of £1,764 6s. 5d. over last year; and the surplus was £1,173 7s. 11d., against £375 4s. 5d. for the year 1921. There are slight increases in the amount of subscriptions received, a very satisfactory increase in the sale of the JOURNAL and other publications, receipts for advertisements and rent from tenants.

The fees received for the special war examinations show a considerable increase, but will not occur again, as these examinations ceased at the end of 1922.

Increases have occurred on the following items of expenditure over last year :—(1) Rent of premises ; (2) interest on mortgage ; (3) fuel ; (4) general meetings and exhibitions ; (5) medals and prizes ; (6) grants to various societies ; (7) miscellaneous expenses, partly due to legal expenses in connection with the purchase of land in Maddox Street and the mortgage on the Institute premises.

Savings have occurred as follows :—(1) Rates, taxes and lighting ; (2) salaries ; (3) general printing ; (4) *Kalendar*.

We again urge that, in view of the extension of the Institute property, the Council should endeavour to obtain the freehold of the rear portion of No. 11, Conduit Street, which is held on a lease for about 80 years at a rental of £55 per annum.

It is observed with satisfaction that the Trust Fund securities on the 31st December 1922 have increased in value to the extent of £1,929.

A new mortgage has been arranged with the Norwich Union Life Insurance Co. for £20,000 on the Institute premises, which has enabled the Council to pay off the old mortgages of £4,000 and £10,000, and to purchase the freehold land at the rear of Nos. 23 and 25, Maddox Street, and a mortgage redemption policy has been effected whereby the new mortgage will be redeemed at the end of 30 years.

On the expenditure side there is an item of £56 14s. for hire of rooms. This, we understand, was necessary to provide additional accommodation for examination purposes.

The work of the Institute has been carried out in a very efficient manner, and the staff is to be commended for the way in which their duties have been carried out.

JOHN HUDSON [F.]
ARTHUR W. SHEPPARD [A.]

THE FINANCES OF THE ROYAL INSTITUTE

The balance sheet and statements prepared by the Auditors and the Report of the Hon. Auditors show the present position of the finances of the Institute.

The estimate for the year ending 31 December 1922 has been exceeded, but owing to the income being better than anticipated, there is a balance on the year of £1,173 7s. 11d. The freehold at the rear of Nos. 23 and 25, Maddox Street, has been bought, and Mr. Keen has prepared a design for a new Meeting Room, Council Room and other improvements, and an estimate has been obtained and the work will be started in June, and it is hoped completed in October. This heavy expenditure will necessitate an increase in the mortgage, and provision must be made to meet the interest and sinking fund on this, so that with the decrease in the examination fees there will not be much margin for dealing with appeals for funds which are constantly being made.

H. D. SEARLES-WOOD, Vice-President,
Chairman of Finance and House Committee.

THE FIRST REGIONAL PLANNING SCHEME

The First Regional Planning Scheme*

H. V. LANCHESTER [F.], PRESIDENT, TOWN PLANNING INSTITUTE.

THOUGH there may be assumed to be something of the accidental in the fact that the district around Doncaster happens to be the first to secure presentation in the form of a regional study in conditions, and their effect on a Town Planning scheme, the circumstance is in no way to be regretted. The area, while not a typical one, presents a number of features tending to give such a study more than ordinary interest. For one thing its physiography is very distinctive, for another its development is in the throes of a change that will materially affect its immediate future, and thirdly this change demands a very definite reconstruction in a number of sections of the region in question.

Doncaster is the centre of one of our new coalfields comprising valuable seams, the working of which has only been delayed through the greater depth at which they lie. Situated at the edge of older workings, it has already been found a convenient position for industries, which, in virtue of its railway facilities, have grown up here, and with coal on the spot the industrial interests will inevitably expand.

To realise why the railway position is a strong one, we must glance back at the physiography, when we see that the town is situated on the western edge of the low-lying plain that extends to the North Sea, itself standing on an outlying ridge running into this plain. The main railway route to the north avoids the hilly districts on the west, but by reason of directness keeps as near them as possible. Even the older coach road kept more or less to this route, and if we glance at the map it is easily seen that Doncaster would be an appropriate centre for radial routes both eastward and westward; these, in fact, it possesses in its roads and railways, and it only demanded the proximity of the coal which has now come to it to become one of the leading manufacturing centres.

It will be apparent that in some directions there was a measure of regional planning in the past, though, as Molière would have said, our predecessors were unaware that they spoke in prose. We, in our day, have the advantage of a wider synthesis and know that our planning must go much further than transport facilities alone.

Naturally, the industrial possibilities of the region exercise a predominant influence in dictating the programme for development, and these are set out in some

detail, as will be realised from the following quotations:

"As a centre for the establishment of iron, steel, or engineering works, the district presents many and varied advantages; a number of new collieries, now fully equipped, several of which are drawing 4,000 tons of coal daily, and are assured of a life of one hundred years (in working one seam only), produce abundance of cheap fuel; in addition, large beds of limestone, moulding sand, and clay are to be found, the district thus providing a large part of the raw materials necessary for successful and economical working. Large areas of land have been reserved for new industries; many entirely suitable sites are available at once, and could be acquired on reasonable terms. Several tracts of low-lying land suitable for tipping purposes for works refuse would, after tipping, form suitable works sites for many trades. Water for works and condenser purposes can be had in unlimited quantities, and the presence of the old channel of the River Don further assists industrial development."

"Since the year 1849 Doncaster has been the centre for the design and construction of the rolling stock of the Great Northern Railway Company. The Company's works give employment for about 5,000 hands, and provide an excellent class of mechanic of a very high standard of efficiency."

"Large engineering works and brass and iron foundries are also located here, employing several thousands of hands, so that there is no difficulty in obtaining supplies of parts of all kinds of machinery promptly and economically."

"The industrial advantages which this region has to offer are very considerable, and may be summarised briefly as follows:

"1. A railway system of main lines with a network of branches unsurpassed in any country, and connecting with every part of England.

"2. A waterway for boats (carrying 100 tons) leading direct east to the sea, to the west of Sheffield, and to Wakefield, Leeds, and the busy manufacturing centres of Yorkshire and Lancashire.

"3. A magnificent system of main roads and highways, with good connections throughout the country, bringing road transport costs and charges to the lowest.

"4. Valuable beds of coal underlying the whole of the area, guaranteeing manufacturers' cheap supply of fuel for power and manufacturing purposes.

"5. Huge beds of limestone (magnesian) peculiarly suitable for so many manufacturing purposes and building.

* *The Doncaster Regional Planning Scheme : The Report Prepared for the Joint Committee by Patrick Abercrombie and T. H. Johnson. (The University Press of Liverpool, Ltd. 10s. net.)*

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

" 6. Beds of sand, gravel and clay earth for use in building and brickmaking, reducing constructional costs to a minimum.

" 7. An abundant supply of level land suitable for building, and to be had at reasonable prices.

" 8. Doncaster serves as the market town of a large agricultural district, stretching to the River Trent, on the east of the area, thereby assuring plenty of cheap food."

" Having regard to these facts and the rapidity at which the Doncaster regional area is now developing, the time has arrived for a coherent scheme for the proper development of this huge industrial district, which comprises the Don Valley, and stretches from Bawtry on the south to Barnsdale Bar on the north, and from Mexborough on the west to Hatfield on the east—roughly, an area 18 miles long and 15 miles wide."

" In addition to the power station of the Doncaster Corporation, which stands in the centre of this area, and the large power stations of the various colliery companies, which are already linked up, it is proposed to establish a chain of gigantic power stations along the entire length of the Don Valley, forming a portion of the proposed North-East Midlands Electricity District Supply Area, which extends from Macclesfield to the River Humber, and includes the Don Valley and the steel-making and iron-smelting district of Frodingham. The scheme is now being dealt with by a Parliamentary Committee, which has already taken evidence, and decided on the necessity for the construction of super-power stations in this area."

" Adequate supplies of cheap fuel are available throughout the whole of this district. The coal from most of the collieries in the Don Valley is specially suitable for steam-raising purposes, and the presence of the River Don provides an efficient supply of water for condensing; the whole thus forms an ideal condition for the establishment of power stations."

The statement as to industries is followed by a definite but elastic scheme of zoning, in which areas for housing and agriculture are demarcated, and suitable districts for industrial developments are indicated.

This is followed by a study of the communications, from which the following introductory remarks may be quoted :—

" The existing means of communication of the Doncaster region are remarkable in this respect—they appear to be devised, at any rate as regards road and rail, to lead traffic swiftly through the district without making more than a perfunctory stop at the town of Doncaster itself. In a word, the region appears to be extraordinarily well supplied with links to the outer world, but, as regards itself, full of inaccessible spots."

" The fact of these main national through-routes being in existence is of enormous advantage during the process of metamorphosis which is proceeding: firstly

and obviously, by reason of the advantages for commercial connection with the rest of the country; and, secondly, because it is a comparatively simple matter to turn these through-routes into means of local intercourse."

" There is no need for the costly creation of new railways, beyond, of course, sidings for opening up new areas for works sites, and as to roads, while radially the district is fully supplied, a single road (made up largely of existing portions) with a loop on the west is sufficient to provide circumferential connection. For the rest, the widening of existing roads (still easy of accomplishment), and the bye-passing of narrow village streets and the establishment of mechanical methods of transportation, will complete without much outlay a most efficient local road system."

" This region is already well furnished with the means of transporting goods by road, rail and water. The two former are already on a scale to cope with great industrial development, provided certain safeguards are taken and obvious defects removed. Water transport, however, requires strengthening, and this should be undertaken either jointly with Sheffield, which is equally interested in the matter, or independently for this region alone."

" There should be no suggestion that these three methods of transport of goods are antagonistic. The old attempts on the part of one method to gain controlling interests in, and then sterilise the activities of another method, belong to the bad old school of economics."

Among the numerous other questions dealt with in the report it may be of interest to refer to the consideration given to those features which from their interest and beauty demand preservation, and also study as to how they may be best embodied in a comprehensive scheme. A further quotation or two will indicate the attitude towards these :—

" The principal object of historical interest in the region is to be found close to Sprotbrough, namely, Conisbrough Castle. The other historic features of the district most worthy of preservation are certain of the old villages; Campsall, Burghwallis, Hickleton, High Melton, Marr, Hooton Pagnell and others still preserve their original character. Wherever possible, when these places are found on important traffic routes, the main stream of traffic should be carried beside them by means of a bye-pass: the old method of widening the village street was both costly and destructive of its charm.

" Mention should also be made of some of the fine tree-planted avenues in the region: the Great North Road, where it enters Doncaster, Sheep Bridge Lane, near Rossington, and others: no road widening should be allowed to interfere with those trees, which could be worked into the new widths where required. It is to be regretted that the most durable type of tree has not al-

THE FIRST REGIONAL PLANNING SCHEME

ways been planted in the past, some of these of an age of about 80 years being badly decayed. Provision should be made at once for replacing these with varieties which experience has shown will have a longer life in the district, and generally the tree-planting on all wide new roads should be most carefully studied.

The general principles on which the recommendations are based can best be appreciated by the following summary :—

“ It would, of course, have been possible to suggest that the most economical plan for the region comprised in this Report would be to concentrate the *whole* of the new residential development in Doncaster, and to provide a series of swift radiating routes in every direction to collieries and factories wherever situated throughout the district. This is not the view of this regional development scheme ; it is intended to surround Doncaster with a ring of satellite towns or urban communities, taking for the most part existing villages for their nuclei, but in several places establishing new centres. This method of growth, provided the small communities are accessible to each other and to Doncaster, should prove far more healthy and pleasant than a single gigantic town : provided, also, that the small communities are not formless amœbæ, but vertebrate in structure, containing their local centres and foyers of social life.”

“ By these centres are meant both those growing places already in existence, such as Adwick-le-Street and Bentley (absorbing old villages), and Woodlands and Kirk Sandall (colonising new sites), also those entirely new communities which may come into existence as a result of this regional scheme.

“ It is desirable to make it clear that all of these types of new communities are not to be treated as isolated suburbs of Doncaster : fragments, as it were, of her suburban growth that have got separated from the parent mass, as moons have been formed from a planet. On the contrary, they are complete entities whose existence is in no sense the result of an overflow from Doncaster but is owing to one or other of the fundamental causes of urban birth.

“ They should therefore be equipped with the organic formation needful for full corporate growth. While each community forms part of the Doncaster industrial region, in other words, is a member of a well-regulated family, each individual possesses full functional powers. It is necessary to dwell upon this at some length in order that, when the local schemes of these communities are being prepared, no feature of a fully organised modern town may be omitted. Factory areas and main roads are determined regionally ; but locally there will be the provision of a visible centre of community life, a shopping centre (which may be coincident with the former), open spaces, in the form of children’s

playgrounds, playing-fields, local parks, allotment gardens, etc.”

In regard to the city of Doncaster itself the Report strikes quite an inspiring note :—

“ Doncaster has the makings of a fine city of the first magnitude : the approach to its main street—at any rate, from the south-east along the Great North Road—is perhaps as fine as the entrance to any town, great or small, in the United Kingdom. The ownership of a great corporate estate, both in the town and around it, gives it opportunities for carrying out projects and reaping the financial benefits of prosperity rare in this country. Its architectural character, not only in the Parish Church and famous Mansion House, but in many dignified houses dating from the eighteenth century, has nothing provincial about it. Its road plan, again, is no muddle, like that of many larger towns, but, thanks to a level site and a Roman origin, is simple and easily grasped, and, one might add, easily capable of expansion.

“ A site should be laid out as soon as possible for new municipal offices and other public buildings. Cardiff is an example where this has been done in a quickly growing modern town. As each subsequent building is added increased dignity is lent to the group, in contradistinction to the common practice of buying up isolated sites and dotting public buildings here and there.

“ The separation of the Mansion House from this group, though on some grounds regrettable, is not vital. The so-called Town Hall at Liverpool, for example, is some considerable distance away from the municipal, education, and tramway offices, and is entirely used by the Lord Mayor as his town house and for the Council Chamber.

“ In preparing a scheme for a civic centre it is not sufficient to have a well-balanced site plan : control of the architectural character and heights of the buildings is also necessary to obtain the full benefits of combined grouping. Doncaster is fortunate in having its seven main lines combined into a single railway station. It is to be hoped that at some time a worthy façade should be given to it, so that it may appear as the great modern portal of the city.”

Without reproductions it is impossible to do justice to the very clear and artistic maps illustrating the scheme ; both these and the whole presentation leave little to be desired. A few more aeroplane views, showing the general character of various districts, would have assisted in forming a mental picture, but it was, perhaps, impracticable to secure these. A population map ought certainly to have been included, but in most respects the Report is so well arranged and so clear that it may well form a model for the numerous studies on similar lines that will be required in other districts.

Sir Christopher Wren's Carpentry

A NOTE ON THE LIBRARY AT TRINITY COLLEGE, CAMBRIDGE

BY HENRY M. FLETCHER, M.A. [F.]

Early this year the Clerk of the Works, being concerned about the sagging of the longitudinal beam (XX, Fig. 12), cut through its plaster covering midway in search for a possible fracture. The construction laid bare was so unexpected that the College authorities gave permission for further investigation. The results showed such a bold departure from traditional methods as to make it highly probable that this carpentry was devised by Wren himself.

an academic body, did not suit his book. In his well-known letter to the Master he says :—

" I haue chosen middle pillars and a double porticoe and lightes outward rather then a middle wall, as being the same expence, more gracefull, and according to the manner of the auncients who made double walkes (with three rowes of pillars or two rowes and a wall) about the forum."

The main cross-beams or girders of the floor (Fig. 1)



COLONNADE UNDER TRINITY LIBRARY

The problem was the carrying of the floor and the heavy "classes," or bookcases, projecting about 8 feet 6 inches from the walls on each side. The supports were the two walls and a row of stone columns down the centre, spaced at about 20 feet centres from the walls and 13 feet centres from each other. It is evident that, had Wren chosen to use two rows of columns, placed under the ends of the classes, the difficulties would have been greatly lessened; but this, perhaps because he was building for

are oak balks 16 inches by 16 inches, and 20 feet long from the walls to the central point where they meet over the heads of the columns. The bottom of the beams which divide the cloister ceiling into panels is formed of 16 inch by 4 inch oak plank bolted centrally to the girders. These planks and girders are 8 inches apart, leaving room for the 16 inch by 8 inch cantilevers or blocking-pieces (Figs 1, 3, 6 and 7), which reduce the actual span of the girders to about 12 feet 6 inches. The

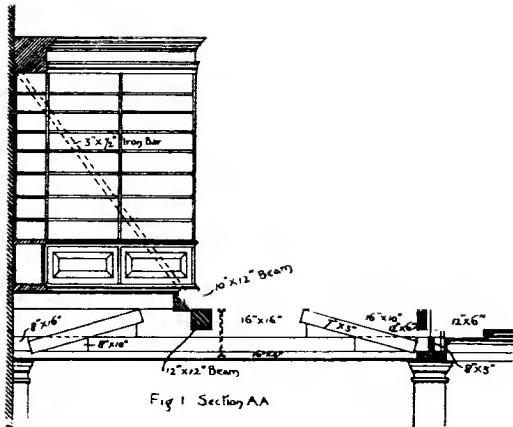


Fig. 1 Section AA

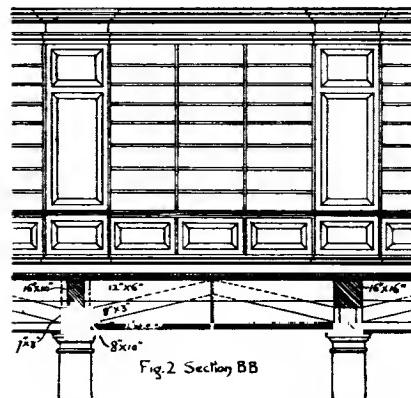


Fig. 2 Section BB

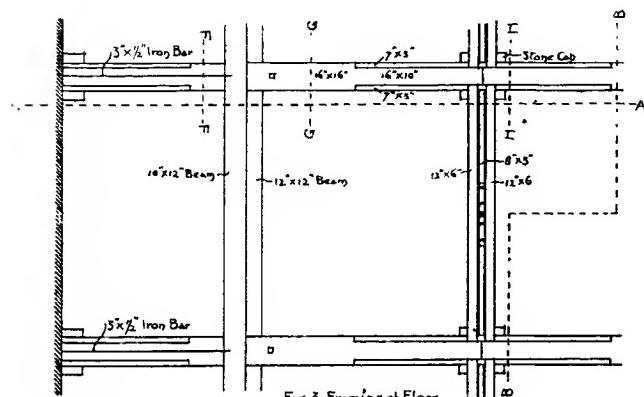


Fig. 3 Framing of Floor
Joists omitted

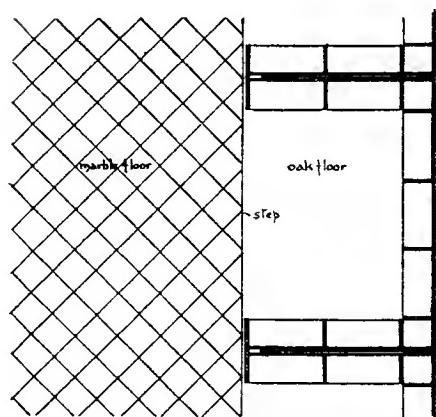


Fig. 4 Plan of Library Floor & Bookcases

THE LIBRARY - TRINITY COLLEGE - CAMBRIDGE CONSTRUCTION OF FLOOR

Scale of Feet

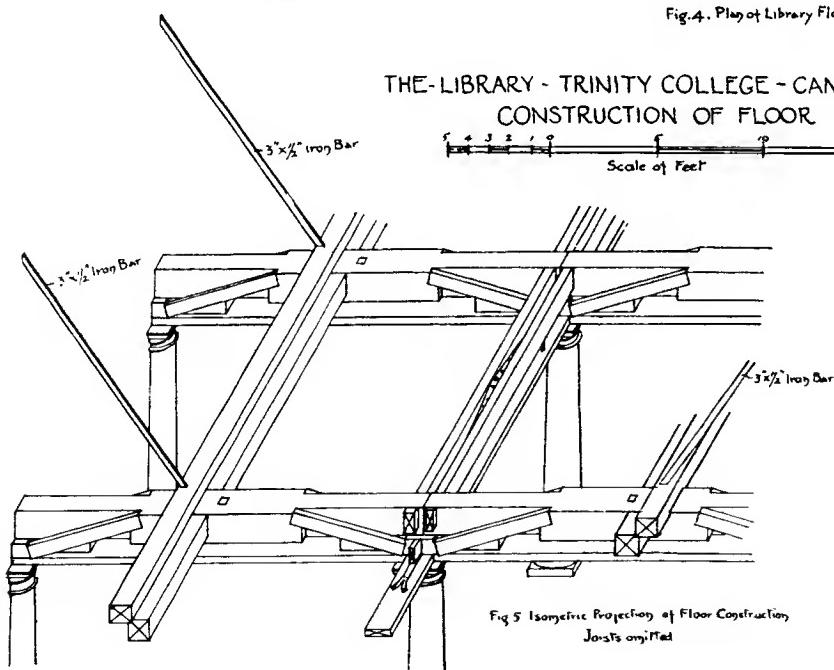


Fig. 5 Isometric Projection of Floor Construction
Joists omitted

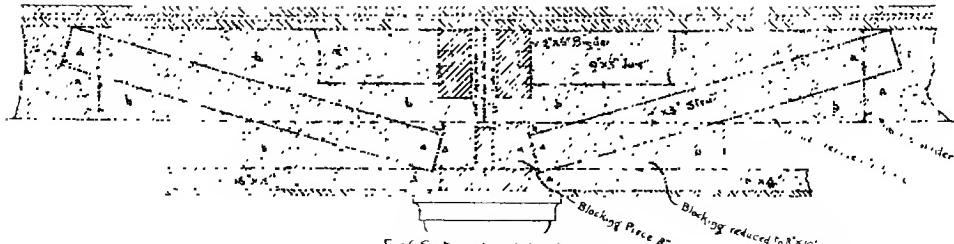


Fig 6 Section of Longitudinal Beams
& Evolution of Transverse Beams
for a b see Fig 7

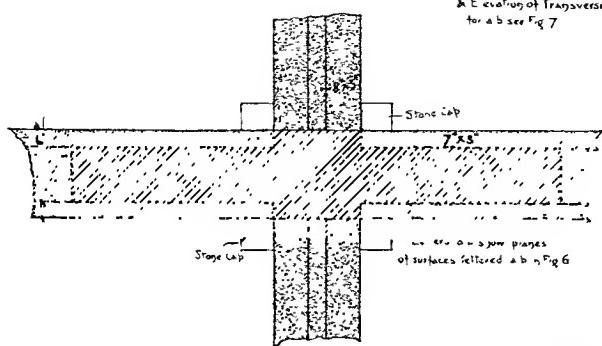


Fig 7 Plan of Blocking Piece over Heads of Columns (EE Fig 6)

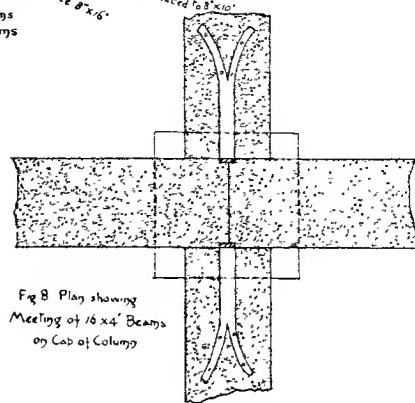


Fig 8 Plan showing
Meeting of 16 x 4' Beams
on Cap of Column

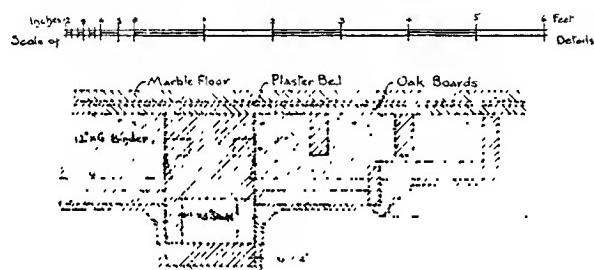


Fig 9 Section of Transverse Beams at GG Fig 3 THE LIBRARY
TRINITY COLLEGE CAMBRIDGE
CONSTRUCTION OF FLOOR

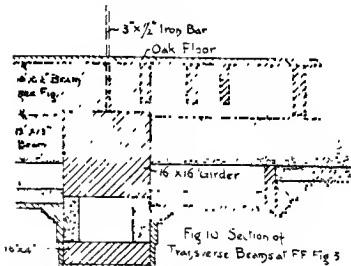


Fig 10 Section of
Transverse Beams at FF Fig 5

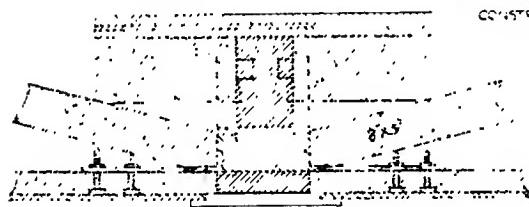


Fig 11 Section of Transverse Beams at HM Fig 3

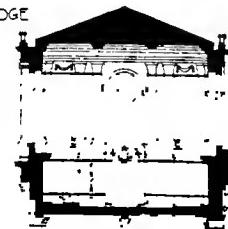


Fig 12 Cross Section of Library
& Cloister

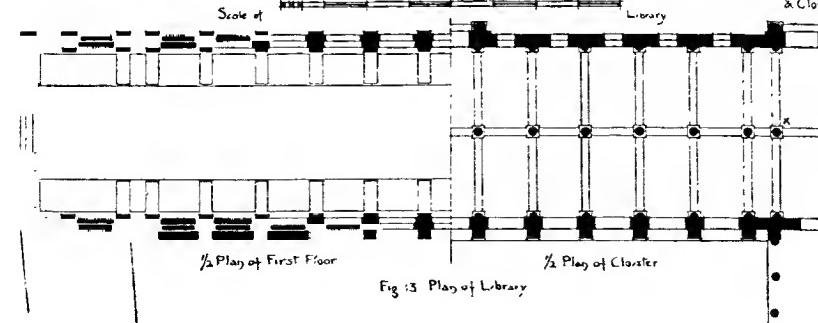


Fig 13 Plan of Library

REVIEWS

girders and cantilevers are both reduced in width for part of their length from 16 inches to 10 inches, 3 inches being cut away on each side. The remaining surfaces are shouldered to receive 7 inch by 3 inch struts, evidently formed out of the timber cut away from the girders and making the whole system into a kind of truss. The scheme may have been devised in the first instance in order to prevent the outer ends of the classes from dropping when loaded with books (see left-hand end of Fig. 1), but it also relieves the pressure of the girders on the ends of the cantilevers.

The classes are carried on the girders, but the weight is relieved by a 10 inch by 12 inch beam (Fig. 1), notched over the girder, through which is bolted a 3 inch by $\frac{1}{2}$ inch diagonal iron bar, built into the wall near the top of the bookcase and concealed between the backs of the double bookshelves. This forms a triangular bracket, which transfers a great part of the weight of the classes on to the walls. It was impossible to see how the bar is bolted through the 10 inch by 12 inch beam: it does not pass through the girder. Into the 10 inch by 12 inch beam are framed the joists of the oak floor in the recesses.

The longitudinal beams from column to column consist of two oak binders 12 inches by 6 inches (Figs. 1, 2 and 6) framed to the girders about 4 inches apart. Into the space between these two rises another truss (Fig. 2) consisting of two diagonal members 8 inches by 3 inches, connected by an iron plate at the apex with a bolt to carry the centre of the 16 inch by 4 inch planks. As the only bearing for these 16 inch by 4 inch planks is the outer part of the stone abacus (Fig. 8) they are provided with iron plates bolted through and turned up to receive the ends of the diagonal members.

The marble floor of the central part of the library is laid on a bed of plaster over oak boards. These are carried by 9 inch by 3 inch oak joists framed to the 12 inch by 6 inch centre binders and to 12 inch by 12 inch binders (Fig. 1) at the outer edge of the floor. Joists have been omitted in all drawings except the large-scale sections, for the sake of clearness.

The whole construction is unusual, and it would be interesting to hear from others, who have had occasion to examine buildings of Wren or his school, whether they have come across anything like it elsewhere. It has served its purpose well; the timber is in splendid condition, and the only failure has been in the non-structural beam XX (Fig. 13). The transverse beams are remarkably true and level, and the harmless settlement of the cloister paving serves to show by contrast how the central columns have performed their task for 250 years without sinking. It must be remembered that the Grylls Bequest, housed in two rows of dwarf bookcases along the floor, has added a far from negligible weight to that for which Wren calculated.

There can be little doubt that this floor is an authentic

piece of Wren's own design. Apart from the internal evidence of its experimental nature, we have the passage of the letter already quoted, in which he says:

"I haue given the appearance of arches as the Order required fair and lofty: but I haue layd the floor of the Library upon the impostes, which answar to the pillars in the cloister and the levells of the old floores, and haue filled the Arches with relieues of stone, of which I haue seen the effect abroad in good building, and I assure you where porches are lowe with flat ceelings is infinitely more gracefull then lowe arches would be and is much more open and pleasant, nor need the mason feare the performance because the Arch discharges the weight, and I shall direct him in a firme manner of executing the designe."

It is true that this refers to the mason and the filled-in arches facing Neville's Court, but the floor is in close connection with those arches, and it is evident from the whole tone of the letter that Wren was deeply concerned about every detail of this building, knowing that in it he had designed one of the masterpieces of our architecture.

Thanks are due to the College authorities for kindly consenting to these investigations, and to Mr. R. T. Buck, the Clerk of the Works, for the particulars which he has supplied.

The House of Cards

BY W. W. SCOTT-MONCRIEFF.

To my friend,
F. ERNEST JACKSON, Painter.*

There are certain physical laws with which we are familiar and in which we have complete confidence, for we are able to prove them by means of our physical senses. If we raise a weight from the floor and then let go, we know that the weight will fall, in obedience to the Law of Gravity. We know that if we put twenty-one apples into a basket we must not expect to get twenty-one apples out of it. In like manner it is almost a certainty that these laws of matter are reflexes of the Laws of Mind, and that both come under the greater and universal Law of Action and Reaction.

When we use the word "proof" we mean something that can be demonstrated physically. We can therefore prove the truth—or, shall we say, the apparent truth—of physical laws. But when we come to deal with the mind we are at once in difficulty. Yet this much is obvious, that in the mental world it is hopeless to look for physical proof. Our best guide is that which we feel to be true. This may be called our sixth sense.

Analogous to the physical laws above cited, we may say with some degree of certainty that if by power of

* Mr. Scott-Moncrieff, in his article, has adopted in his dedication to Mr. Jackson a mode of address more common in French than English literature. Mr. Jackson is well known as a painter in *fresco* and in *tempera* on *gesso*. His lithographs are well known both at home and abroad.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Will we raise moral tone and then relax the Will, the moral tone will fall. If we put twenty Will-units towards an object, we must not expect the achievement of that objective to be of twenty-one-Will-unit calibre. We must not expect to take more from life than we give to it, and we cannot expect better Architecture than we wish to have. After all, this is but justice.

Now in the world physical there is a law of which we have proof. We know that with every physical motion there is a loss of power due to friction. So in the world of the mind there is an analogous loss due to misdirection. The more perfect the direction of Mind towards an objective the easier will that objective be reached and with the greater economy of Mind Power.

Again, to "educate" means to bring out or to lead forth, and the wise master is he who will find out what there is in his pupil to lead forth, and, having done so, he will give it true direction. To "educate" does not mean to stamp a hundred souls with a single brand. So to proceed is to create "friction," and as no two bodies are alike, so no two souls are alike, and since every soul has its own path to follow, we cannot direct a hundred souls along the same path without loss of Mind Power. Loss of Mind Power means loss of invention and originality. It is, in fact, loss of original Thought Power. But since no physical thing exists which did not first exist as "Thought," loss of original Thought Power means less Power in things made, for things are reflex of Mind and so of Thought.

But things have three dimensions, for they have length, height and thickness; and if thing is reflex to thought, the Mind must think in three dimensions in order to create things. Thus the Mind which endeavours to create things must be a mind trained to think in three dimensions.

And now for this House of Cards.

If we wish for new thought to be expressed in Architecture; if we wish Architecture to possess vitality, to vibrate with the life which is born of vibrating thought, it is useless to teach that Architecture, a thing of three dimensions, can be produced by means of a two-dimensional thought training. The Architecture of to-day is the result of two-dimensional thought training, for we teach Architecture on paper. Our buildings look like "paper" Architecture. It is useless—still more useless—to expect from paper Architecture the human, living element by teaching the young architect to draw according to the Beaux-Arts or Atelier standard.

If we compare the greatest modern American buildings—I say American advisedly because American architecture is the super-draughtsman's architecture—with buildings of similar calibre of any period, say prior to 1600, we at once feel that one is mechanism expressed in two-dimensional thought and the other is vibrating still, with the play and fancy, with the spirit,

life and power, of those who worked directly and who consequently thought directly, without loss of power—without friction—in three dimensions.

That power still remains; we feel its vibration as we look at all the masterpieces of the past. If Chârtes Cathedral were pulled down and then replaced with new masonry, stone for stone, it would never be the same thing. But if we really wanted to build cathedrals as fine as Chârtes, now, in this twentieth century, we should be able to do so. The trouble is we do not want to do any such thing. Instead we build a House of Cards. It has almost reached its topmost storey, and is trembling before its fall.

We architects have allowed ourselves to become accomplices in a crime—not a crime in the world physical, but a crime in the World Mental, and by that same Law of Action and Reaction we are reaping as we have sown. The crime is that we have deprived the master workman, the fine workman, the craftsman, the mason, the carpenter, the joiner and the bricklayer each of his direct power of original three-dimensional, creative thought. We have constituted ourselves as equal to gods, for we have said:

"We can put all they ever knew or ever felt—upon paper; we can draw their mouldings, their play of spirit and fancy, their feeling for surface and texture, their joy in light and shade in hollow and in round—upon paper. We will deprive them of all they ever learnt from their sense of touch—the only sense which teaches the third dimension. We will take their very souls from them. We will make them our slaves, to copy what we choose to draw upon paper. We have the gift of expressing every human emotion—which they, as an act of worship, wrought into brick and stone—upon paper."

Such is the foundation of our House of Cards—but it is a foundation with only two dimensions, and so, though the house be of the flimsiest, it must fall.

There are Laws Physical and there are Laws Mental. After all, if the House fall, it is only a House of Cards, and justice must be done.

For pleasure in one's work, the sincere expression of one's individuality is faith, or it is nothing.

Reviews

THE COUNTRY LIFE BOOK OF BUILDING AND DECORATING. Edited by Reginald T. Townsend. [40, Garden City, N.Y. 1922. 16s.]

Any publication in this country bearing a title such as this excites interest, and we look for something good; this interesting volume from across the water does not disappoint our anticipation. It is composed of fully illustrated articles written by various authors on subjects appertaining to country homes of the better class,

REVIEWS

and covers a wide range—e.g., “Building in Brick” to “What We Should Know about Plumbing” and “Early American Glass, Ceramics, etc.” These chapters are written in a popular vein for the general reader; perhaps the best is that dealing with “The Living Room”; it is a particularly fascinating essay, written by one who is enthusiastic on the subject of making a “Home.”

Perhaps the most striking impression in reading the book is the feeling of similarity of the architecture to that of this country, and the frank admission of the writers as to the fount of their inspiration. For instance, there is one article, entitled “The Cotswold Influence in America,” in which the writer convinces himself, if not his readers, that the Cotswold influence is a national heritage which may be assimilated in America without being a “bit of affectation and archæological pedantry, nor a piece of anglomaniac insanity.” The expression is ambiguous, and one wishes that the feeling in the original style was followed more closely, at all events in the examples illustrated.

Many of the Georgian homes might be in England so closely do they resemble the English prototypes. Mention might be made in particular of a house at Stockbridge, Mass., illustrated on page 6. It is clear that where an endeavour is made to be original the freedom of expression is not always an improvement, at all events to our eyes. Roof dormers are obtrusively introduced into the composition, columns of 27 diameters in height with disproportionate entablatures are anomalous even when qualified by that convenient term “Colonial Architecture.”

Invariably the settings of the houses show good judgment, though one writer says that “the American is as yet too prone to make too much use of the steam shovel and too little use of art.”

It is interesting to learn that some Americans can skilfully build in brick and find that construction the most economical and otherwise commendable, while another, in discussing heating, pleads for open fires, stating that “we are slaves to steam heat to our detriment.” There are illustrated some ingenious types of covers for radiators, and one or two good examples of mantelpiece design. The chapter on the kitchen is full of practical hints, but it is questionable if as much can be said for the cramped plan accompanying the article.

The water-colour frontispiece is delightfully painted, and other drawings by the same clever artist would be welcome.

The production shows excellence, and is generously illustrated throughout; English architects will doubtless spend many happy hours in perusing these pages.

ERNEST B. GLANFIELD [F.]

BEELEIGH ABBEY, ESSEX. By R. C. Fowler and A. W. Clapham and others. 8o. [R. E. Thomas & Co., 24, White Street, E.C.2. 1922.] £1 1s. n.t.

There can be little doubt but that, during the last few years, there has been a marked tendency on the part of the general public to interest itself more keenly than heretofore in matters archæological. The man in the street not only displays his readiness to participate in the delights of antiquarian research, but quite frequently we find him specialising in some particular branch of the subject. To realise this one only has to regard the flourishing condition of many of our local archæological societies, and the large numbers which attend their meetings and excursions. This is all highly gratifying, and augurs well for the future care and preservation of our ancient buildings; it is also a strong incentive, to those who possess the necessary qualifications, to collect and publish the history of the various buildings and objects of interest in their particular locality. For obvious reasons such histories as these are urgently needed, and the *History of Beeleigh Abbey* will therefore be received with keen appreciation.

The inspiring influence of this very charming publication rests with the present owner, Mr. R. E. Thomas, and very ably and thoroughly have his wishes been realised by the efforts of Mr. R. C. Fowler, F.S.A., and Mr. A. W. Clapham, F.S.A., the former dealing with the historical, and the latter with the antiquarian, portion of the work. A delightfully written and appropriate “Foreword” has been contributed by Canon Galpin, M.A., President of the Essex Archæological Society.

The first chapter of the book is devoted to a brief history of the Premonstratensian Order, of which there were thirty-four houses in this country. The Order was founded, in 1121, by St. Norbert, at Prémontré, in France. Then follows a detailed account of the foundation and history of the Abbey, from which it appears that Parndon was the first home of the Order in Essex, where the monks seem to have been established about the middle of the twelfth century. In 1180 Robert Mantell granted to the monks the Maldon site, whither they at once migrated. In view of his generosity Mantell was regarded as the founder of the Abbey, and the advowson remained in his family for about 120 years, when it was alienated to others.

A word of congratulation is due to the authors for their great patience and perseverance in the compilation of the history of this ancient house; the information contained in Chapter two is very exhaustive, and is evidence of the great amount of research entailed. A copy of the inventory of goods made by the commissioners at the suppression of the house in 1536 is appended to this chapter, and is most interesting reading.

Then follows a description of the possessions of the Abbey, the various arms and seals, the abbots, and the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

families who owned it subsequent to its dissolution. At this period Henry Bourchier, second Earl of Essex, was patron, and in March 1536 he writes an appealing letter to Thomas Cromwell, Henry's Vicar-General, begging him to intercede with the King on behalf of the House, and in the event of the appeal being successful offering to pay into the King's exchequer the sum of one thousand marks, a very considerable amount in those days. The appeal, however, was unavailing, for in January 1537 we find the premises leased to John Gate, of High Easter, who took a prominent part in the suppression of the monasteries ; he was subsequently beheaded for his participation in the Duke of Northumberland's plot to set Lady Jane Grey on the throne.

After passing through various hands the property, in 1801, was settled on Francis Baker, in whose family it remained for over a hundred years. In 1912 a lease was granted to Captain Grantham, a son of the late judge, and ultimately came by purchase into the possession of the present owner.

Chapter seven contains a most interesting description of the site and buildings, a special feature being the careful comparison of the plan of this house with those of others of the Order, notably that of Shap Abbey, in Westmoreland, ground plans of both houses being included, to illustrate the letterpress. Mr. F. C. Eden, F.S.A., is responsible for the chapter on the fragments of fifteenth-century glass at Beeleigh, while Mr. H. W. Lewer, F.S.A., and Mr. A. G. Wright have contributed some valuable notes on the examples of pottery and tiles discovered on the site. The letterpress concludes with the chapter on the "Heart of St. Roger," by Dr. Round. The work is profusely illustrated with photographs of the buildings, both inside and out, and also with a series of detail drawings from Hadfield's *Ecclesiastical Architecture of Essex*.

WYKEHAM CHANCELLOR [F].

PRESENTATIONS TO THE LIBRARY

Mr. A. W. SMALLWOOD, the Director of Greenwich Hospital, has presented to the Institute Collection of Photographs eight large photographic views of the Hospital, which has on two recent occasions been visited by members of the Institute.

The Institute is indebted to Mr. C. F. Bell, the Keeper of the Department of Fine Art of the Ashmolean Museum, Oxford, for two important contributions to the library collections. These are a photograph of the portrait of John Nash, by Sir Thomas Lawrence, in the Hall of Jesus College, Oxford, and an electrotype cast from Wadham College of the very rare posthumous medal of Sir Christopher Wren, cast and chased by G. D. Gaab, of Augsburg, about the year 1783. The medal is described in *Medallic Illustrations of British History*, 1885, Vol. II., p. 458, No. 69.

The Late Edwin Thomas Hall

BY THE PRESIDENT (MR. PAUL WATERHOUSE, M.A.)

It is a special, though melancholy, pleasure to me to be allowed to offer some homage to the life of an old friend by contributing a brief biography of one whose death (on 15 April) has fallen very suddenly upon us ; and I come forward with these notes upon his life qualified chiefly by the fact that there are few who have enjoyed more personal memories of his career of usefulness to his brother architects.

Hall came of architectural parentage, for his father, George Hall, who practised in Victoria Street, was known in his time as the designer of buildings in several parts of the country as well as in London. Two of Hall's brothers became constructional engineers. His birth took place at Lowestoft in 1851 and it was at an early age that his choice of architecture as a future profession was made. This choice was fostered by some early opportunities of foreign study, for at the ages of 15 and 16 he began a series of Continental wanderings which, starting with Belgium and Northern France, continued at intervals throughout his life, or at least down to 1909. Paris, Brittany, the South of France, Switzerland, Italy, the Baltic, Germany, Norway, and even India were all in their turn visited or revisited, and in all architecture and its study were the subjects of his attention and interest.

At some date in the 'sixties Hall spent two years at the South Kensington School of Art as an architectural student, and his regular office training was obtained under Joseph Fogerty, F.R.I.B.A., M.Inst.C.E., with whom he remained until he started practice on his own account. Probably the engineering side of his master's occupations contributed not a little to the constructional and scientific abilities of the pupil's after-career.

A year before Hall left Fogerty's office he initiated, by arrangement with his master, the beginnings of a personal practice ; and in 1875 we find him installed in the City office which he subsequently abandoned for the office at the south-east corner of Bedford Square, which he occupied to the last days of his life.

His work may be divided into domestic commissions, factories and warehouses, offices, hospitals, sanatoria, and shops. To mention the last first, it is well known that he was engaged on the rebuilding of Messrs. Liberty's vast building at the angle of Regent Street and Argyll Place. This great site has a frontage of over 200 feet in Regent Street and extends eastward as far as Great Marlborough Street. It will be recalled that, though a stone treatment is to prevail on the western façade of the design, the frontage in Argyll Place is of a half-timber type, Hall having with characteristic persuasion won his way with the County Council as to the

OBITUARY

legitimacy of timber framing as a fire-resisting material for an external wall. London awaits with interest the result of this bold experiment, the completion of which, as no doubt of most of Hall's work, is in the capable hands of his son and partner, Mr. E. Stanley Hall.

It is perhaps as a hospital designer that Hall was most appreciated by his many clients. During the war he carried out—I believe in an entirely honorary capacity—the vast work of transforming H.M. Stationery Building near Waterloo Station into a hospital for nearly 2,000 beds, as well as the Welsh War Hospital at Netley, remarkable for having been constructed in eight weeks from the date of receiving instructions to the moment of occupation, his son being his collaborator in both of these efforts.

The Manchester Royal Infirmary, though competed for and carried out in conjunction with Mr. John Brooke, of Manchester, stands out as Hall's best known achievement. It cost nearly £400,000, and is a monument of his special skill in the achievement of those essential and intricate elements in a building of hygienic purpose which are not always classed as architecture. Every problem connected with drainage, heating, ventilation, and general sanitary efficiency received from Hall an almost loving interest which placed him in the forefront of practical schemers and made him in many departments of domestic engineering a forerunner and pioneer. His success in winning (in 1894) the competition for the large hospital at Hither Green brought him much other work of like nature. Two hospitals were erected for the City of Leeds where treacherous foundation was successfully combated by Hall's favourite system of "raft" foundation. Camberwell Infirmary, Plaistow Hospital, the extension of St. George's Infirmary, the Barnato-Joel Cancer Research Block at the Middlesex Hospital, special wards and a Nurses' Home at the Caterham Asylum, the Home at Brompton Hospital and the Sir Henry Tyler wing of the Homœopathic Hospital in Queen's Square are other conspicuous examples of his work. For other hospitals he carried out only initial instalments: for example, the Out-patients' Department for the Jewish Hospital at Stepney, and the same for the Battersea Hospital.

In designing the Frimley Sanatorium for the Brompton Hospital, Hall won a victory over some opponents on the Board and induced them, after they had ordered a remodelled design, to return to his original intentions. The completed design won a prize at the Washington Congress. His determined and then original ideas on sanatoria found further exemplification in the South Wales Sanatorium at Pont-y-wal, near Talgarth, the Lenham Sanatorium for the County of Kent, and that at Godalming, though all these differ in their distinct characteristics, the differences being due to site and to requirements. He was often employed as consulting architect in work of this class; and at

Streatham he completed—with amendments of his own—the British Home for Incurables, which the untimely death of Arthur Cawston in 1894 left without an architect.

Hall's factory practice was also important. Of this class of buildings it will be sufficient to give typical examples; so I content myself with mentioning those erected for Messrs. Epps & Co. at Blackfriars, and Messrs. Causton & Sons in Clapham Road: as early as 1875 Hall was engaged on several large office blocks or warehouses, and between that date and 1915 his work was to be found in Basinghall Street, Finsbury Pavement, Threadneedle Street, New Broad Street, Bishopsgate, St. Dunstan's Hill, Laurence Pountney Lane, Birch Lane, Parliament Street and Cannon Row. He built the National Press Agency building and the head offices of the Metropolitan Asylums Board. He remodelled the London Joint Stock Bank in Lothbury, and built the same bank's branch at Peckham. He also remodelled the old Baltic premises in Threadneedle Street, since demolished.

Hall was not without church work, though this did not constitute any large proportion of his achievements. Of domestic work both large and small he had a good share. He designed Sloane Mansions in Sloane Square, and several houses in Cadogan Square and Pont Street. The Broad Street Station dwellings in Finsbury, the St. George's Home for Children at Chelsea, and all the houses in the Beech Hill Park at Hadley Wood were from his designs. A very large work of his was the block containing many hundreds of rooms known as St. Ermin's, near St. James's Park Station, Westminster. A large ball room at Tangier Park, Basingstoke, is by him, as are also houses at Eltham, Sevenoaks, Ivy Hatch (near Ightham Mote), Reigate, Crowborough, Edenbridge, Chobham, Harrow, Basingstoke, Beulah Hill, Gibson's Hill and Gypsy Hill.

But with all this professional work Hall laid himself out to put his eminently practical and logical mind at the service of his fellow-men in unarchitectural as well as in architectural quarters. His life at Dulwich was one round of public duty very cheerfully undertaken and very carefully performed. Not only was he for the last 22 years a driving force among the Estates Governors of Alleyn's College of God's Gift, during three years of which he was their chairman; a college governor for nearly as long a period; and a trustee for the Charity Commissioners of Dulwich College Chapel; but he was also respected and valued for 30 years as vicar's warden of Emmanuel Church; and I doubt whether there were many public enterprises of any kind in that district to which he did not offer his sympathy and practical help. Whether his membership of the Dulwich Golf Club took the form of play or patronage I do not know, but he knew his way about a croquet lawn and was fond of the recreation.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

His family life was a singularly happy one. He married in 1878 Florence, the eldest daughter of the late Julian Byrne of the Madras Railway, and he leaves, besides his widow, three sons and four daughters, three of whom are married, one to the vicar of St. Stephen's, Dulwich. As a young man he was fond of choral singing and practised with the little private society that met at Mrs. John Dicksee's in Fitzroy Square. He was also a member of the "Anonymous Society," a group of young men, mostly artists, among whom were some famous names, and who, as they continued their brotherhood for some forty years, were eventually no longer young. Masons will recall him as a past-master of the No. 5 Lodge and a past grand steward of Grand Lodge.

As a vice-president of the London Society he took a vital interest in London improvements and was the author of a design (in 1915) for an Imperial Memorial which included the destruction of Charing Cross Bridge, the removal of Charing Cross Station to the Surrey side, the erection of a road bridge in place of the railway bridge, and the construction on the Middlesex side of an Imperial Palace and large open square or "place."

He won two gold medals at the Milan Exhibition for his architectural exhibits.

I have left to the close his work at and for the Royal Institute of British Architects, work which among his architect friends is perhaps a more intimate memorial than his works as a designer. He achieved the position of vice-president ; but to say this only is to belittle the strength and the great variety of his services. Even if I add that he was a most industrious secretary of the Practice Standing Committee and eventually one of its very best chairmen, as well as a member of several others, I have given no idea of his self-sacrificing work for the Institute. If we sometimes in jest called him "Bye-law Hall," it was an affectionate jest and implied a great deal of reverence for his astonishing power of keeping us all right on the legal and semi-legal aspects of our constitution. That he should know our bye-laws and charter within and without was not to be wondered at, for in company with his old friend and my old friend Mr. John Slater, he did most of the drafting of the Charter of 1887. But to *know* these things was not enough. To *express* them was the need ; and his power of courteously and logically explaining the most complicated aspects of some particular point at issue was quite unequalled. How many times since his retirement from the Council have I felt the need of his illumination at the Council table ! Again, if there were any work to be done in which a clear and lawyer-like mind coupled with endless industry were wanted, Hall was the man for the work. Notably was this the case when the reform of the London Building Acts was on foot. Not only did Hall study and collate the building legislation of London and many provincial and foreign cities, but

he actually drafted a model Act to supersede that of 1857 ; and when the L.C.C. took up the task of amendment, Hall was retained by the City of London and drafted their amendments to about a hundred clauses. Further, when the L.C.C. promoted this Bill, it was Hall, who, in the absence of Cates through illness, stepped into the breach at the urgent request of his colleague, and by infinite research among the records of Parliament established, what was thought to be a forlorn hope, the right of the Institute to a *locus standi* before the House. It was, I believe, by his own almost unaided efforts that he won his point and thereby won also a great victory for the Institute's future position and prestige. To give details of the many ways in which he steered the Institute through many knotty problems and legal intricacies would be useless here ; but it remains a fact most gratefully remembered that for perspicacity and clear-headed insight placed ungrudgingly at his confrères' service he never had an equal among his colleagues.

There are many classes of mind in this world, and it is sometimes by the prevalence of unreasonable mentalities that we appreciate what the truly orderly mind might be. Hall's was the orderly mind ; problems set themselves out in his sight in a logical disposition ; he enjoyed tidiness in words and argument. For such a mind there are two calamities possible. The one is that the engine of thought may be used maliciously : the other that the same engine may before life is ended fail its owner. From both of these calamities Hall was spared ; from the first by his kindly nature, from the second by a continuance of health to which his own personal pluck was no doubt largely contributory. It is a happiness to his friends to know that clear thought was his possession to almost the last hour, and to realise that a man to whom life was work was enabled to lay down his tasks without that interval of disordered twilight which would have been to him, if not intolerable, at least a very grievous burden.

A Tribute by W. A. Pite [F.]

I have been asked to write a few lines upon the career of one whose passing from us we regret and deplore, and with a keen sense of unfitness I attempt to do so.

There have been but few men among us so well known as a constant and familiar figure at our gatherings until quite within recent years, when Mr. Hall's appearances have not been so frequent.

His services were in much request by public authorities, who consulted him in regard to Poor Law infirmaries and hospitals, in which branch of practice as an architect he was more particularly concerned. A mere catalogue of these works is not the purpose of these lines ; suffice it to say, they are many. Few architects desire to be known as specialists, and our friend was one of these ; and yet the particular success and experience he gained in that branch had the tendency, though unsought, to lead to specialisation.

CORRESPONDENCE

In hospital practice this is not unnaturally to be expected. The subject is so diffuse in its many ramifications and wide scope, and insistence on the public welfare so great, that little surprise need be felt in the fact of hospital authorities seeking for wide and varied experience in their advisers. The successful development of such large undertakings can only safely be left in the hands of those who have secured by long research the knowledge which cannot be attained merely by literary records.

Such was the foundation upon which Edwin Hall had to build ; and he "made good." Possibly the great Fever Hospital at Hither Green, for the Metropolitan Asylums Board, laid the basic work of much that was to follow in after years at the two other great Fever Hospitals at Lillingbeck and Seacroft, near Leeds.

The extension of the Brompton Hospital for Consumption opened new ground for other sanatoria undertakings on a vast scale at Frimley and the National West Sanatorium. The acquisition of sound knowledge of the organisation of special departments, which in recent years have grown by leaps and bounds, has to be solidly laid down, line upon line, precept upon precept, such as only the initiated know. The acquisition of this practical experience culminated in the production of the Manchester Royal Infirmary, which was won in competition in collaboration with Mr. John Brook. In this scheme a bold move at development was made in isolating the great ward blocks from other parts of the building by open access corridors. This great building is a worthy memorial of tireless energy.

It is not only by the successes of those who have gone before, but it must be added by the unwilling failures, in some respects, that progress can be made. Hall was a many-sided man, and had he not adopted his father's profession he had other inherent qualities, among which of a forensic nature, which might have made a successful barrister.

Keen in debate at all times, a master of facts, and ready speaker, this particularly qualifying gift must have stood him in good stead in the arduous course of a hospital architect's dealings in committee.

Interested and indomitable thoroughness were characteristic of the man ; genial in address, approachable and helpful to those who sought his counsel.

He was generally dominant and certain on debatable points and seldom spoke except when he seemed sure of his ground.

These qualities and particular experiences caused him to be sought for by those concerned in cases of litigation and ancient light ; in all such engagements Hall was in a congenial element and proved himself to be a keen fighter.

Although hospital work formed a large part of his practice, he always seemed to have a sufficiency of other commissions which happily separated him from the undesirability of dealing with one phase of practice.

At the time of his lamented death he was actively engaged upon Messrs. Liberty's great undertakings, now rising in Regent Street, in the somewhat daring exploit of producing a great modern emporium in the mediæval manner. All this was a very real delight to him, and almost with a boyish enthusiasm he remarked what "great fun" it all was.

One comforting reflection may be permitted in closing. The only times at which we architects gather together in corporate worship is on such occasions as that of last Thursday when we assembled to take a brotherly farewell of one who has passed over. It is a precious link with our past.

Correspondence

CHARTER, COUNCIL, OR ELECTION: WHICH?

5 March, 1923.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—The letter which you published from Mr. F. R. Hiorns in the Journal for February 24 last is interesting. But, if he will forgive my saying so, it is curious evidence of what seems a confusion of ideas. And for this he is not so much responsible. His leaders and guides, those members of Council, some of them Vice-Presidents, and a minority of the Unification Committee, are the wicked associates and bad fellows who have led him astray. Evidently Don Quixote is not yet dead. His followers still amuse us by charging harmless windmills. Perhaps Mr. Hiorns will look the matter over in the light of information which is available.

As the Unification Committee represented "the whole profession" and not the R.I.B.A. alone, it might pass any resolution it liked without risk of danger to the Institute. A resolution adopted by it could only have the power of one which any debating society might accept. Its decisions committed nobody. It was a committee of explorers and no more.

It could only express opinions. But in doing this it did suggest certain considerations to the R.I.B.A., through the Council. The late Council very courteously received those suggestions. What were they ? One was that all architects should be brought into the R.I.B.A. as members. It did not say as Fellows, as Associates, or even as Licentiates. The other went so far as to ask the R.I.B.A., not the Council of the Institute, to alter its Charter in order to do what the first suggestion involved. The late Council "approved" both these suggestions. It could do no more. Courtesy forbade it to do less. Even if the Council "adopted" these proposals, that decision could in no way, under the Charter, commit the General Body to the policy involved. And the same Council quite properly, and correctly, in its reply to the Unification Committee's suggestions, said that this was the case. The fact that they did so was known, or ought to have been known, to those alarmist Vice-Presidents and Members of Council who adopted the rôle of a Quixotic chivalry. And it was also known to every member of the Unification Committee who took the trouble to attend to business by reading his papers. The Committee had the necessary information before it in writing. If this was the case, perhaps it will now be evident to Mr. Hiorns that it would have been rash of me to "take steps unsuccessfully to secure the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

adoption of a procedure " which the late Council itself had taken without success, because the gallant Horatios of the Defence Committee declined to follow the correct procedure adopted by that Council and defined in the Charter.

The procedure recommended by the Council, known to the Vice-Presidents and Members of Council—known, too, to the members of the Unification Committee, and all the Quixote family, including Rosinante and Sancho's long-eared steed—is given in a circular letter dated 26 July 1921, over the signature of the Honorary Secretary of the R.I.B.A., who was also at the same time Honorary Secretary of the Unification Committee. The part of it that matters stated that the Council, the late Council, so careful of correct procedure as compared with its successor, had appointed a Sub-Committee to investigate and negotiate. It then said :—" This Committee is actively at work and is preparing a report for the Council. It is hoped that this preliminary work will be completed by the end of the holidays and that the Council of the R.I.B.A. will then be in a position to submit to the General Body a complete scheme for the carrying out of Resolution No. 3 " (i.e., the one that refers to Charter revision). " When this scheme has been accepted by the General Bodies of the R.I.B.A. and the Society of Architects, a meeting of the Unification Sub-Committee will then be called to carry on the work." Could anything more effective be proposed in the interests of the General Body so that they should have, as Mr. Hiorns says, " this proposal placed before them for decision " ? Could it have been better done by the present Council, driven by its Don Quixote majority, a Council which has directly overridden, in Rosinante fashion, two very definite decisions registered by a " Resolution of the Royal Institute " in General Meeting assembled (See Charter VII, 23.) I at least may be permitted to express the opinion, no. It seems unnecessary to say more.—Yours truly, HUBERT C. CORLETTE [F].

R.I.B.A. ACADEMIC DRESS.

9 Gray's Inn Square,
London, W.C.1.
23 April 1923.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—We duly received our April JOURNAL and the picturesque illustration of academic dress ; but we think perhaps the title " Comic Supplement " had been omitted in our copy, which was also lacking in several other details. No information was given as to when this costume was to be donned, nor of the necessity for its creation.

Perhaps information might be provided by the authors of this pleasant little extravaganza as to whether it is for use at our general meetings, so that we can admire each other in the disguise of potent, grave and reverend seigniors, and add fashion details to the agenda,

or whether it is to be worn in our offices to impress clients and overawe travellers, or on the occasion of visits to jobs to protect our clothes from the general dust of work in progress, and perhaps identify us to the foreman. By the way, there is another serious omission. No design appears for costumes for clients. To quit fooling : we can imagine no more futile, undignified and useless proceeding than to spend our time dressing ourselves up in this manner (or proposing to do so).

Where a ceremonial costume is the outward and visible sign of ancient and honourable traditions, hallowed by the custom of centuries, we yield to no one, in reverence, for the spirit it signifies, or in our opposition to any innovations which would tend to destroy its use. Architects have too frequently laid themselves open to charges of ill-considered restoration. Surely to revive the type of dress which has long yielded to the changed style of life is but a gross instance of the same spirit.

The days of ordered formality, flowing robes and ceremonious affectations are gone beyond recall, and in an age which is suffering from the rude shocks that a great war has given to civilisation, unostentatious endeavour and recognition of our duties to the community seem the only ways in which architects need strive for recognition. Fine feathers do not make fine birds, and conversely, " Good wine needs no bush." Let us be content to be judged by our works, and refrain from advertisement by personal adornment. Costumes of this type, if at all necessary, should be confined to office bearers in virtue of and for the term of their office.—Yours faithfully,

A. J. HEALEY [F].
W. S. GRICE [A].
W. B. STEDMAN [A].

ENGLISH DECORATION AND FURNITURE OF THE LATER EIGHTEENTH CENTURY.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—With reference to the authorship of the drawing-room chimney-piece at Kedleston, I should like to point out that this is closely similar to chimney-pieces at Hatchlands, Harewood and Croome, known to have been designed by Adam. To quote Mr. Arthur Bolton, the drawing-room mantel-piece at Kedleston, " with a pair of tall figures, follows the ideal set by that house (i.e., Hatchlands) and Croome." In the " great drawing-room " at Hatchlands (1759) " the fine white marble mantel-piece displays a pair of tall, graceful figures, a composition which was Robert Adam's ideal " (illustrated and described in *The Works of Robert and James Adam*, Vol. I, p. 137). At Harewood, the chimney-piece now in the dining-room (*circa* 1765) is " a fine instance of an early type of tall, graceful women " (illustrated *ibid.*, p. 164). (A design for this is dated 13 June 1777, showing slight differences from the work as executed.) Does Mr. Sayer suppose that

LONDON STREET ARCHITECTURE

these closely similar chimney-pieces were all early relics worked in by Adam for his client? The fact that the detail is large in scale in the Kedleston drawing-room chimney-piece is also characteristic of the chimney-pieces already referred to.

The drawing-room chimney-piece was carved by the Danish sculptor Spang, who was at work on other chimney-pieces at Kedleston, such as those in the music-room and the dining-room. Is Mr. Sayer also inclined to antedate these chimney-pieces?

M. JOURDAN.

* * * This correspondence is now closed.—ED.

LONDON STREET ARCHITECTURE MEDAL.

AWARD TO MR. W. CURTIS GREEN [F.]

The Jury appointed by the Royal Institute of British Architects to award a Medal to the Architect who has designed the best street frontage completed during the year 1922 within a radius of four miles from Charing Cross has just completed its task.

After careful examination of drawings and photographs of all the buildings which were nominated for the honour, and after a tour of inspection of the actual buildings, the Jury has given its Award in favour of "Wolseley House," 157-160 Piccadilly, designed by Mr. W. Curtis Green [F.], of 5 Pickering Place, St. James's Street, S.W.

The Jury consists of: The Earl of Crawford and Balcarres (*Hon. Fellow*), chairman; Sir Aston Webb, P.R.A.; Mr. Paul Waterhouse, President; Sir Reginald Blomfield, R.A., and Mr. E. Guy Dawber [F.].

ARCHITECTS' BENEVOLENT SOCIETY INSURANCE SCHEME.

Members of the Institute are reminded that life and other forms of insurance can be effected through the Architects' Benevolent Society with advantage to themselves, and at the same time benefit, through the Society, to architects, architects' assistants or their widows and orphans who through ill-health or other causes are in need of financial help. Applications for particulars should be made to the Secretary, A.B.S., 9 Conduit Street, W.

TOWN PLANNING INSTITUTE'S DANCE.

A Dance will be given in the Galleries of the Institute, by permission of the Council, on Thursday, 3 May, under the patronage of the Town Planning Institute. The proceeds will be devoted to the purchase of a most valuable and interesting Collection of Maps and to the Library Fund of the Town Planning Institute. Dancing from 10 p.m. to 5 a.m. Price of tickets, including refreshments, 21s. Applications should be made to A. R. Potter, 11 Arundel Street, Strand, W.C.2. Tel. Central 637.

Practice Standing Committee

RURAL BYE-LAWS.

The advice of the Practice Standing Committee was sought under the following circumstances: Sanction to plans for the disposal of sewage from a small house in the country by a septic tank system had been refused by a rural authority on the grounds that their bye-laws did not provide for this method of disposal, but under their bye-laws a cesspool must be constructed watertight, and the septic tank, which they considered as such, having an outlet (to the filter bed) would not be watertight. There are no public sewers. From the particulars supplied to the Practice Standing Committee, it appeared that the scheme had been properly considered by the architect, due regard having been given to the site, nature of the soil, and all surrounding conditions, and the Committee have advised the applicant to refer the matter to Mr. A. N. C. Shelley, of the Ministry of Health, who offered in his paper, "The Law of Building Outside London," read at the Institute on 18 December last, to deal with such matters.

J. DOUGLAS SCOTT [A.],
H. V. MILNES EMERSON [A.],
Hon. Secretaries.

FEES FOR GIVING EXPERT EVIDENCE.

The Practice Standing Committee, their attention having been drawn to the growing practice of some solicitors of endeavouring to evade, on their clients' behalf, the full payment of fees for giving expert evidence, desire to make known that by case law it has been decided that the payment of the full agreed fee for giving expert evidence can be maintained irrespective of the amount allowed by the Taxing Master or the result of the case. The decision of a Taxing Master is only as between party and party.

The Committee recommend the advisability of obtaining an undertaking in writing, or confirming a verbal one, to pay the agreed fee.

An action dealing with this question was decided by Mr. Justice Neville on 19 February 1918, where the undertaking of a water company was acquired by the Urban District Council, and the taxed costs of the arbitration were to be borne by the Council. The Taxing Master only allowed approximately half the charges of the professional men (consulting engineers) who had acted for the water company, and these were paid. The liquidator of the company repudiated liability to pay the balance of the charges on the grounds:—

(a) That he was not bound to pay more than the Taxing Master allowed.

(b) That the charges, which were at the rate of ten guineas per day of six hours, were excessive.

Action was taken to recover the balance, and judgment was given for the plaintiffs, with costs.

Reference may also be made to the case Llandrindod Wells Water Co. v. Hawksley and others, decided in 1904 in favour of the defendants.

J. DOUGLAS SCOTT [A.],
H. V. MILNES EMERSON [A.],
Hon. Secretaries.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

R.I.B.A. PRIZES AND STUDENTSHIPS.

The following is a list of the Institute Prizes and Studentships to be awarded in January 1924:—

The Royal Institute Silver Medal and 25 guineas, for Essays.
The Soane Medallion for design and £150, for Continental travel and study of ancient buildings abroad.

The Pugin Travelling Studentship: a Silver Medal and £75, for travel in Great Britain and Ireland, and study of Mediæval buildings.

The Owen Jones Travelling Studentship: a Certificate and £100, for the study of ornament and colour decoration.

The R.I.B.A. (Henry Jarvis) Travelling Studentship: £250, at the British School at Rome.

The R.I.B.A. (Henry Jarvis) Travelling Studentships at the Recognised Schools.

The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association.

The Grussell Gold Medal and £50, for Design and Construction.

The Arthur Cates Prize: £30.

The R.I.B.A. (Archibald Dawney) Scholarships.

The Ashpitel Prize: £10 (in books).

The R.I.B.A. Silver Medal for Recognised Schools.

Particulars of the conditions of the various prizes and studentships are published in a pamphlet which can be obtained at the Institute, price 1s.

OPEN SCHOLARSHIP FOR THE STUDY OF MODERN ARCHITECTURE IN THE UNITED STATES.

The Society of Architects, with the object of encouraging the study of modern architecture abroad, have established open scholarships for three years in succession, and later at regular intervals as may be decided and announced. The first of these scholarships is open, without fee, to any British subject between the ages of twenty-five and forty, and will entitle the holder to £300 to be used for defraying the cost of visiting and studying architecture in the United States of America. The candidate to whom the scholarship is awarded is to pursue his study for not less than six and not more than twelve months.

Particulars of the conditions may be obtained from the Secretary of the Society at 28, Bedford Square, W.C.

THE SELBORNE SOCIETY AND THE WREN BICENTENARY CELEBRATIONS.

The Selborne Society have arranged for a summer series of visits in continuation of the Wren Bicentenary rambles which were so successful during the recent celebrations. The programme is as follows:—

- May 26. Cheshunt, to include Temple Bar.
June 2. Hampton Court Visit.
.. 6-9. A survey of the Architecture of Oxford.
.. 14. Windsor Deanery and Guildhall.
.. 16. Fawley Court, Henley.

The co-operation of Members of the Institute in these visits will be welcomed by the Selborne Society.

Notices

THE ANNUAL GENERAL MEETING, 7 MAY 1923.

The Annual General Meeting will be held on Monday, 7 May 1923, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held on 23 April; formally to admit members attending for the first time since their election; to announce the names of candidates recommended for election.

To receive the Annual Report of the Council and Standing Committees for the official year 1922-1923, printed on preceding pages of this issue. Copies of the Report will be available to members at the Meeting.

To nominate candidates (one Fellow and one Associate) for the office of Hon. Auditor for the ensuing year.

To receive the list of attendances at the meetings of the Council and Standing Committees during the session.

VISIT TO THE PORT OF LONDON AUTHORITY BUILDING.

By the kind permission of the Port of London Authority, a visit to their new offices has been arranged by the Art Standing Committee, and will take place on Saturday afternoon, 5 May. Members and Licentiates who wish to take part should apply to the Secretary R.I.B.A. not later than Thursday, 3 May.

R.I.B.A. KALENDAR, 1923-24.

The attention of Members and Licentiates is drawn to the desirability of including their telephone numbers when notifying changes of address. If they wish their telephone numbers published in the next issue of the *Kalendar*, they should notify the Secretary R.I.B.A. not later than 1 September. Changes of address should also be notified by this date.

NOTICE.

TO ALL LICENTIATES OF THE R.I.B.A.

The attention of the Council of the Royal Institute has been called to the growing use by Licentiates of the affixes "R.I.B.A." and "Lic.R.I.B.A." Licentiates are reminded that, on election to their class, they signed a Form of Declaration which contained the following provision:—

"And I hereby agree that I will not use after my name any other affix with reference to the Royal Institute than 'Licentiate R.I.B.A.'"

STANDARD METHOD OF MEASUREMENT.

Upon the advice of the Practice Standing Committee the Council recommend members and Licentiates of the R.I.B.A. in England and Wales to adopt the "Standard Method of Measurement" agreed by the Surveyors' Institution, the Institute of Builders, and the National Federation of Building Trades Employers.

Copies of this document may be obtained from the Surveyors' Institution, 12 Great George Street, Westminster, S.W.1, and the National Federation, 48 Bedford Square, W.C., price 10s. 6d.

NOTICES

Probationers R.I.B.A.

Since 25 February 1922 the following have been registered as Probationers of the Royal Institute :—

- ABRAMS : EDWARD DE LA TOUR, Hulton Mount, Brassey Road, Limpsfield, Surrey.
 ADAMS : MARTIN, Rosebank House, Alma Road, Rosebank, C.P., S. Africa.
 ALDERSON : WILLIAM ROYSTON, 55 Willow Bank Road, Birkenhead.
 ALLESTER : DONALD CAMPBELL WOODVILLE, c/o 2 Rye Hill Terrace, Newcastle-on-Tyne.
 AMY : HEDELY JAMES YOLE, 29 East Street, South Molton, Devon.
 AERTHOTON : STANLEY, The Firs, Madeira Road, West Byfleet, Surrey.
 AYERST : CHARLES THOMAS, 22 St. Helens Road, Hastings, Sussex.
 BAILEY : ARTHUR, 161 Well Hall Road, Eltham, S.E.9.
 BAILEY : REGINALD THOMAS, 90 Lower Brook Street, Winchester.
 BAINES : HERBERT, 119 Waterbarn Street, Burnley, Lancs.
 BARCLAY : ROGER FRANCIS, Somerleyton, Overton Road, Sutton, Surrey.
 BARNETT : HAROLD SAMSON, 43 Stockwood Crescent, Luton, Beds.
 BARWICK : GEOFFREY BROWNLOW, 20 Trinity Street, Boston, Lincolnshire.
 BEDINGFIELD : ERIC EDWARD, Bitteswell Road, Lutterworth.
 BEGLEY : REUBEN JOSEPH, 10 Paradise Place High Street, Marylebone, W.1.
 BENIANS : FREDERICK JOHN WILLIAM, 124 Hanover Road, Willesden, N.W.10.
 BENNETT : WALTER ROBERT FRANCIS, "Brightside," Grove Road, Havant, Hants.
 BILLIMORIA : HOMI FRAMJEE, 144 Princes Road, Liverpool.
 BIRD : HENRY CLEMENT EDMUND, 518 Warwick Road, Sparkhill, Birmingham.
 BIRKETT : PHILIP WALTER, Brier Lea, Carline Road, Lincoln.
 BLACKBURNE : STANLEY L., 16 Endsleigh Street, W.C.1.
 BOOT : ROBERT CUTHBERT LEONARD, Stockfield Hall, Acock's Green, Birmingham.
 BOOTH : STANLEY CYRIL, 47 Southchurch Road, Southend-on-Sea.
 BOWN : STANLEY HINKS, Pitway House, Farrington Gurney, nr. Bristol.
 BOWRING : CHARLES CLIFFORD, 102 Walbrook Road, Derby.
 BRACKEN : CYRIL EDGAR, 5 Carfrae Terrace, Plymouth.
 BRADLEY : FRANK, Sunny Bank, Junction Road, Deane, Bolton, Lancs.
 BRADLEY : FRANK, 8 The Croft, Garden Suburb, Oldham.
 BREAKWELL : JOHN, 27 Harlow Moor Drive, Harrogate, Yorks.
 BRINTON : WILLIAM RALPH, 8 Queen's Gate Terrace, S.W.7.
 BRITTAINE : THOMAS ARNOLD, 28 St. Stephens Road, W.2.
 BROWN : CYRIL CLEMENT, 15 Ashfield Terrace East, Newcastle-on-Tyne.
 BROWN : FRANK, 50 Fosse Road South, Leicester.
 BROWN : ROBERT NEVILLE, Aubrey House, Harton, South Shields.
 BROWN : STANLEY SWAN, 2 Mariners Cottages, South Shields.
 BUCKINGHAM : GEOFFREY SAMBROOKE, 44 Mile End Road, Norwich.
 BURNETT : GEORGE ALAN, 8 Ayresome Terrace, Roundhay, Leeds.
 BYERLEY : RUPERT EDWIN, 59 Western Road, Winchester, Hants.
 CANNELL : JAMES, 39 Hetherfield Road, Streatham, S.W.
 CARLTON : HERBERT, 8 St. Andrews View, Penrith.
- CARTER : PETER GEORGE JEFFERY, 37 Hamilton Road, Reading.
 CAVANAGH : JAMES, 29 Bath Street, Oldham.
 CAWSE : STANLEY VICTOR, 15 Dyne Road, Kilburn, N.W.6.
 CHAFFIN : ALBERT EDGAR, 41 Natal Road, Ilford, Essex.
 CHANDLER : FREDERICK, "Somerville," Lansdowne Road, Luton, Beds.
 CHANDLER : HECTOR BROOKES, 68 Dunvegan Gardens, Eltham Park, S.E.9.
 CHIPPINDALE : FRANK, 10 Ash Grove, Otley, Yorks.
 CLAASSENS : JAKOBUS, B.Sc., Irrigation Dept., Union Buildings, Pretoria, South Africa.
 CLARKE : SAMUEL NOËL AUSTIN, 42 Lord Street, Southport, Lancs.
 CLAYDON : BERNARD, 641 St. Helens Road, Bolton, Lancs.
 CLEMENTSON : JOHN GEORGE, 69 Westminster Street, Bensham, Gateshead-on-Tyne.
 CLOKE : SAMUEL DOUGLAS NEIGHBOUR, 19 Whiteford Road, Mannamead, Plymouth.
 COCKBAIN : WILLIAM NORMAN, 150 Liscard Road, Wallasey, Cheshire.
 COHEN : JACOB, 33 White Lion Street, Norton Folgate, E.1.
 COLLINS : TOM ANDERSON, 2 Bancroft Road, Hale, nr. Altringham, Cheshire.
 COMMEN : KENNETH VERNON, 47 Parliament Street, Cape Town, South Africa.
 COOPER : ARTHUR FRANK, 53 Telephone Road, Southsea.
 COPESTAKE : EDWARD CYRIL GEORGE, Glen Helen, Nant Road, Golders Green, N.W.2.
 CORNFORD : ROGER HENLEY COPE, 3 Melina Place, St. John's Wood, N.W.8.
 CORTIS : WALTER NUGENT, The Holt, Beaconsfield.
 COWLEY : RODFRICK HEDLEY, Horsebridge, Hellings, Sussex.
 DARSA : HENRY, 19 Camden Gardens, Shepherd's Bush, W.12.
 DAVIES : MONICA MARY JULIA, 11 Pollitt Street, Barnsley.
 DAVIS : CHRISTOPHER HENRY ROSS, 6 Alfred Street, Bath.
 DEANE : CHARLES EDGAR, 8 Castle Street, High Wycombe, Bucks.
 DOLLAR : SAMUEL, 247 Goldhurst Terrace, Hampstead, N.W.6.
 DOLMAN : FRANK LIONEL JAMES, Crest House, Putney Bridge Road, S.W.15.
 DUNCAN : DOUGLAS GRIEVE, "The Cottage," Scotland Road, Stanwix, Carlisle.
 EDMONDS : STANLEY EARL, 27 Hill Park Crescent, North Hill, Plymouth.
 EGAN : STEPHEN WILLIAM HUNTLEY, 50 Sunny Gardens, Hendon, N.W.4.
 EVANS : CHARLES HERBERT, 106 Monthermer Road, Roath Park, Cardiff.
 FALGATE : WILFRID, 252 Anglesey Road, Burton-on-Trent.
 FARMER : GEOFFREY JOHN, "Westside," Portbury, Somerset.
 FERRIBY : EDWARD ASHTON, 80 Westbourne Avenue, Hull.
 FILMORE : CECIL ERNEST, Newhaven, Hollyhedge Road, West Bromwich.
 FORD : WILLIAM ARTHUR, 18 Clunie Road, Kew Gardens, Surrey.
 FRY : EDWIN MAXWELL, 1 Cavendish Gardens, Princes Park, Liverpool.
 GARDNER : HAROLD STANLEY, Swallowfield, Reading.
 GARDNER : KENNETH EDWARD FREDERICK, "Errol," Cumnor Avenue, Kenilworth, C.P., South Africa.
 GARDNER : ALFRED HERBERT, 5 Albany Road, Coventry.
 GASSON : STANLEY ALFRED, "Talbot House," Greenwood Avenue, Westcliff-on-Sea.
 GEDDES : CHARLES WILLIAM, c/o S. R. Crocker, Esq., Chappells Chambers, Swansea.
 GILBEY : GORDON ERIC, "Anfield House," Leamington.
 GODDARD : ALEC NORRIS, 123 Dalyell Road, Stockwell, S.W.9.
 GOLAY : FREDERICK ALFRED, 19 Osborne Road, Palmers Green, N.13.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- GOLDSTRAW : GEORGE ALBERT, 8 Great George Street, Salford, Manchester.
- GOUGH : GERALD CHARLES PLRCELL, " Sunny Mead," Lands Road, Paignton, Devon.
- GREEN : JOHN EDWARD GEORGE, 45 Hereford Road, Acton, W.3.
- GREENWOOD : FREDERICK, 255 Brunswick Street, Nelson.
- GRIGG : LESLIE ARNOLD, 17 Sheppard Street, Swindon, Wilts.
- HARLING : GEORGE, 26 Rosegrove Lane, Burnley, Lancs.
- HARPER : WALTER GEOFFREY, 58 Oxford Road, Moseley, Birmingham.
- HARRIS : EDWARD RICHARD BINGHAM, 17 St. Stephens Road, Ealing, W.13.
- HARRISON : GEOFFREY STANLEY, Thurlow, Aldenham Avenue, Radlett, Herts.
- HARTLEY : WILLIAM SUTHERS, " Avenig," Brook Lane, Oldham.
- HARWOOD : WILLIAM JOSEPH, 61 Cemetery Road, Southport.
- HAYSOM : ERNEST WILLIAM, 13 Forbury Road, Portsmouth.
- HIGHAM : ERNEST HARRY HAMILTON, The Parsonage, Seamen's Orphanage, Liverpool.
- HILL : JOHN RAWORTH, 15 Dudley Road, Brondesbury, N.W.6.
- HODGSON : FRANK LESLIE, 5 West Street, Sydney, Australia.
- HOGARTH : HORACE ALWYN, 75 Coltman Street, Anlaby Road, Hull.
- HOLMAN : JOHN, Ryde Cot, Blandford Road, Beckenham, Kent.
- HOLT : ERIC, 1 Fern Bank, Scotforth, Lancaster.
- HOOPER : HUBERT REGINALD WILLIAM, 8 Trafalgar Street, Brighton.
- HORNER : HUGH BALDWYNNE LYLE, 105 Southwood Lane, Highgate, N.6.
- HOWARD : GEORGE GERARD, 12 Rockdove Gardens, Tollcross, Glasgow.
- HUGHES : ROGER WILLIAM, Ivy Cottage, Petersham, Surrey.
- HURST : CHARLES LEONARD, 375 Hutton Lane, Bolton.
- ISAAC : CHRISTINA ROSS, 30 Richmond Street, Park Avenue, Hull.
- JACKMAN : PHILIP ERNEST, " The Elms," Dudbridge Hill, Stroud, Glos.
- JOLLEY : VINCENT ALPHONSES, 73 Adelaide Street, Blackpool.
- JONES : JOHN HAROLD, 78 Gravelly Hill, Birmingham.
- JONES : WILLIAM GLYN, " Eirianfa," Calderstones Road, Liverpool.
- KEEBLE : HARRY LEONARD, Langham Villa, Back Church Road, Clacton-on-Sea.
- KEIGHLEY : FRANK, 65 Ormerod Road, Burnley.
- KEMP : WILLIAM CHARLES, 2A Portnall Road, Harrow Road, W.9.
- KENDRICK : ALBERT WILLIAM ROYAL, 79 Wendell Road, Shepherd's Bush, W.12.
- KERSHAW : SIDNEY, 168 Turton Road, Bradshaw, nr. Bolton, Lancs.
- KING : BERNARD JOHN, 34 Selsey Road, Edgbaston, Birmingham.
- KNIGHT : HENRY RONALD EWART, The Mount, Grand Parade, Leigh-on-Sea.
- LEE : JOHN WILLIAM, 15 Christopher Street, Burley Road, Leeds.
- LLOYD : SETON HOWARD FREDERICK, 14 Augustus Road, Edgbaston, Birmingham.
- LOCKWOOD : HAROLD, 25 Ashley Road, Shipley, Yorks.
- LOCKWORTH : WILLIAM NEVILLE FAULKNER, " Glenmaye," Crofts Bank Road, Urmston.
- MCCOLL : SAMUEL, 5 Bank Street, Paisley.
- MCMORRAN : DONALD HANKS, 34 Butler Avenue, Harrow-on-the-Hill.
- McNAB : ROBERT, 25 Montagu Street, Rothesay, Bute.
- MAGNONI : ARTHUR, 64 Wormholt Road, Shepherd's Bush, W.12.
- MATCHANSKY : ANTHONY, 20 Sage Street, Cable Street, Shadwell, E.1.
- MAUNDER : JOSEPH DE FAUBERT, 47 South Side, Clapham Common, S.W.4.
- MEAD : ARTHUR GEORGE, The Bungalow, Oakington Avenue, Wembley Park, Middlesex.
- MEADES : HENRY CLARKE, Sunnyside Cottage, Back Winter-dyne Terrace, Morecambe.
- MERRIFIELD : CHARLES HENRY NORMAN, 24 Cranko Road, Observatory, C.P., South Africa.
- MILLINGTON : CYRIL RICHARD, 24 Inkerman Street, Llanelli.
- MONSON : JOHN WILLIAM SUTTON, " Fremington," Creswick Road, Acton, W.3.
- MORRIS : ERIC WINSTON, 38 Overdale Road, Ealing, W.5.
- NARBOROUGH : GERALD MICHAEL, 40 Mile End Road, Norwich.
- NEAVE : ALFRED HENRY, 41 Tewkesbury Terrace, New Southgate.
- NEIL : ALFRED HILL, " Trelawney," Higher Erith Road, Torquay.
- NEIL : CHARLES WARREN, 23 St. George's Park Avenue, Westcliff-on-Sea.
- NETHERY : JAMES WALTER, 20 Newington Street, Antrim Road, Belfast.
- OLIVER : LEWIS MARTIN, Shots Mead, Walton-on-Hill, Tadworth, Surrey.
- PACE : JOSEPH, 43 Piazza Casal Paula, Malta.
- PATERSON : ANDREW SMITH, 12 Pitcullen Terrace, Perth, Scotland.
- PEARCE : LIONEL (Jun.), Amblecote, Stourbridge, Staffs.
- PETERS : RICHARD ARTHUR, Abbottsville, Kennington Lees, Ashford.
- PEYTON : LESLIE ARTHUR, c/o A. A. Ritchie MacKinlay, 14 Mercury Lane, Durban.
- PICKERING : ARTHUR CHARLES, 10 Sydney Avenue, Palmers Green, N.13.
- PIKE : ADRIAN STANLEY, " Valeney," Hill Road, Prittlewell, Essex.
- PILKINGTON : THOMAS, 9 Ryburn Avenue, Blackpool.
- PORTEOUS : SELWYN BERKELEY, 202 Upland Road, East Dulwich, S.E.22.
- PRINGLE : GORDON, 25 Coolhurst Road, N.8.
- RAAFAT : MOHAMED, 11 Westbourne Crescent, Paddington, W.2.
- RANDLE : FREDERIC LIONEL, " Brooklyn," Vicarage Road, Smethwick, Staffs.
- REID : HERBERT JAMES, 3 Baldovan Mount, Harehills, Leeds.
- RIGG : MARY FREDA, The Lawn, Waterlooville, Hants.
- ROBERTS : ARTHUR HENRY, 22 Quarry Road, Wandsworth Common, S.W.18.
- ROBINSON : GEORGE SUTHERLAND, 6 Highfield Avenue, Grimsby.
- ROSS : MELVILLE, " Meldrey," Clayton Road, Bradford, Yorks.
- RULE : WILLIAM CECIL, 13 Coronation Terrace, Truro, Cornwall.
- RUNDELL : EDWARD AUGUSTUS, West Laith Gate, Doncaster.
- SANDHAM : ROBERT, " Wargrave House," 6 Ash Street, Fleetwood, Lancs.
- SARGEANT : REGINALD JOHN, " Oaklands," Hornby Road, Blackpool, Lancs.
- SARTAIN : SIDNEY PHILIP, 15 Wandsworth Bridge Road, Fulham, S.W.6.
- SAUNDERS : GEORGE SLEITH, 16 Leopold Terrace, Chaptown Road, Leeds.
- SCAMMELL : RODNEY QUINTON, 706 Coventry Road, Small Heath, Birmingham.
- SCHOFIELD : JAMES ARTHUR, 31 Kendall Road, Beckenham.
- SEELY : HENRY JOHN ALEXANDER, Brooke House, Isle of Wight.
- SENIOR : JOHN ANDREW, 12 Church Street, Hesleden, Castle Eden, co. Durham.
- SHANKS : GEORGE FERGUSON, 193 Kent Road, Glasgow.

NOTICES

- SHANNON : HAROLD JAMES, 1 Wells Street, Jermyn Street, S.W.1.
- SHAW : SYDNEY ALBERT, 13 Church Road, Hoylake, Cheshire.
- SHAW : THOMAS REGINALD, 47 Rider Road, Hyde Park, Leeds.
- SHORE : ROBERT COLLIER, 48 Sheriff Street, Rochdale.
- SHORT : CHARLES HATTON, 23 Wallingford Avenue, N. Kensington, W.10.
- SHROFF : PHIROZE DARABSHAW, Patel Mansions, Gowalia Tank Road, Cumballa Hill, Bombay, India.
- SILCOCK : HUBERT SPENCER, Brandhoek, Walton New Road, Stockton Heath, Warrington.
- SMITH : HUGH BRADLEY BREMNER, St. Oswald's Chambers, Station Road, Port Talbot.
- SMITH : WILLIAM WILFRED, Sherburn House, Cawood, nr. Selby.
- SMITHSON : THOMAS LONSDALE, "Llanover," 33 Highcroft Gardens, Golders Green, N.W.11.
- SPARHAM : GEORGE BRYNMOR, 21 Springfield Road, Brighton.
- SPEAK : LEONARD, 375 Halifax Road, Todmorden.
- SPENCELY : HUGH GREVILLE CASTLE, 15 Ducie Street, Princes Road, Liverpool.
- STABLEFORD : SAMUEL HORACE SAWBRIDGE, 185 Fosse Road South, Leicester.
- STEWART : STANLEY, 18 Batchorgate, Carlisle.
- STOCK : BERNARD HENRY, 3 Torrington Park, North Finchley, N.12.
- STOTT : JAMES FREDERICK, 110 Mayfield Road, St. Annes-on-Sea.
- SUTHERLAND : ROBERT OAKMAN, c/o J. H. Brewerton, Esq., Gervis Chambers, The Square, Bournemouth.
- SYMONS : ARCHIBALD ROY, 230 Oving Road, Richmond Villas, Chichester.
- TADMAN : JAMES ALBERT, 43 Richmond Street, Keighley, Yorks.
- TASSELL : GEORGE EDWARD, Almaville, Tillington, Stafford.
- TEMPEST : BENJAMIN STANLEY, 56 Station Road, Harrow, Middlesex.
- THOMAS : THOMAS WYNN, 2 Clenison Street, Willenhall, Staffs.
- THOMPSON : CHARLES PATRICK, "Derwent," Gordon Road, Weston-super-Mare, Som.
- TIMMIINS : SAMUEL DENNIS, Elmhurst, Stafford Road, Bloxwich, nr. Walsall.
- TONG : HERBERT STEPHEN, 39 Compton Road, Brighton.
- TOWNEND : CYRIL MARCELL, 27 Laverton Road, St. Annes-on-Sea.
- TREZISE : ALWYN, 338 South Boulevard, Hull.
- WALKER : PERCY WILLIAM, 17 Lynthorne Road, Frizinghall, Bradford.
- WALLIS : EDWARD WILLIAM, 14 Northstead Road, Tulse Hill Park, S.W.
- WALTON : DONALD GARBUZZ, Cromwell House, Lord Haddon Road, Ilkeston, Derby.
- WARREN : GEORGE PEARSONS, 46 Delph Lane, Hyde Park, Leeds.
- WARREN : LESLIE BEAL, c/o Arthur Edwards, Esq., 9 Bennetts Hill, Birmingham.
- WEBSTER : HERBERT, 4 Hirst Street, Padiham, Lancs.
- WELSH : OLIVER MARTIN, 38 Pattison Road, N.W.2.
- WHITE : ARTHUR WELLINGTON, 272 Camden Road, N.W.1.
- WHITLOCK : GABRIELLE, "Norman House," 6 Berkeley Street, Hull.
- WHITWELL : WILLIAM ARTHUR, 10 Oxford Road, Acocks Green, Birmingham.
- WILKIE : DAVID ARCHIBALD, 4 Montrose Villas, Hammersmith Terrace, W.6.
- WILKINSON : RICHARD ERNEST BERNARD, "The Poplars," Frizinghall, Bradford.
- WILLIAMS : RICHARD BERWYN, c/o S. R. Crocker, Esq., 37 Castle Street, Swansea.
- WINTER : RICHARD BLYTH, 34 Parliament Hill, Hampstead, N.W.
- WINTLE : ARTHUR EDWARD, 20 Kensington Crescent, W.14.
- WORRICKER : JOHN WILLIAM, 14, Macfarlane Road, Shepherd's Bush, W.12.
- WRIGHT : GERALD RYBY HALL, 7 Willow Grove, Beverley, E. Yorks.
- WRIGHT : WILFRID GEORGE, 60 Haddenham Road, Narborough Road, Leicester.
- WYKES : HERBERT TOM, 57 Ffordd Estyn, Garden Village, nr. Wrexham, N. Wales.

Students R.I.B.A.

The following candidates, having passed satisfactorily through the architectural courses at the "recognised" schools indicated against their names, have been registered as "Students R.I.B.A." The asterisk (*) denotes students exempted from the Intermediate Examination under the special War Concession to Probationers.

- BILLIMORIA : HOMI FRAMJEE (Liverpool University), 14 Princes Road, Liverpool.
- BLACKBURNE : STANLEY L. (Architectural Association), 16 Endsleigh Street, W.C.1.
- BROOKE : DONALD (Liverpool University), 20 College Avenue Great Crosby, Liverpool.
- COOPER : JOHN BRIAN (London University), 20 Divinity Road, Oxford.
- CORTIS : WALTER NUGENT (Cambridge University), The Holt, Beaconsfield.
- FRY : EDWIN MAXWELL (Liverpool University), 1 Cavendish Gardens, Princes Park, Liverpool.
- HARRISS : EDWARD RICHARD BINGHAM (London University), 17 St. Stephen's Road, Ealing, W.13.
- HIGHAM : ERNEST HARRY HAMILTON (Liverpool University), The Parsonage, Seamen's Orphanage, Liverpool.
- *HIGSON : CLEMENT GEORGE, 9 Maple Road, Bradmore, Wolverhampton.
- HILL : JOHN RAWORTH (London University), 15 Dudley Road, Brondesbury, N.W.6.
- MONSON : JOHN WILLIAM SUTTON (Cambridge University), "Fremington," Creswick Road, Acton.
- MORGAN : GUY LESLIE LLEWELLYN (London University), c/o Union Society, University College, W.C.
- PRINGLE : GORDON (Cambridge University), 25 Coolhurst Road, N.8.
- RAAFAT : MOHAMED (Liverpool University), 18 Heathfield Road, Wavertree, Liverpool.
- SEELY : HENRY JOHN ALEXANDER (Cambridge University), Brooke House, Isle of Wight.
- SHORT : CHARLES HATTON (London University), 23 Wallingford Avenue, North Kensington, W.10.
- *SIMPSON : DOUGLAS JAMES, Osborne House, Cotham Park, Bristol.
- TURNER : RALPH HENRY (Liverpool University), 209 St. Andrews Road, Bridport, Dorset.
- WELSH : OLIVER MARTIN (London University), 38 Pattison Road, N.W.2.
- WHITE : ARTHUR WELLINGTON (Cambridge University), 272 Camden Road, N.W.1.
- *WILLIAMS : ALBERT EDWARD, 92 Penkhull New Road, Stoke-on-Trent.
- *WILTSHIRE : DOUGLAS CECIL, Hazlemere, Curzon Road, Bournemouth, E.

REINSTATEMENTS.

The following ex-Members were reinstated :—
As Fellow, Alfred Arthur Cox; as Associate, J. W. Cockrill; as Licentiate, K. B. Spurgin.

Competitions

COMPETITION FOR CONSTRUCTION OF GOVERNMENT SLAUGHTER HOUSE AND FREEZING ESTABLISHMENT, URUGUAY.

Members who propose to take part in this competition are requested to inform the Secretary of the R.I.B.A., who has been asked to send to the British Vice-Consul at Montevideo a list of the members who propose to compete.

TUNBRIDGE WELLS PAVILION COMPETITION.

Owing to an inadvertence Clause E of the R.I.B.A. Regulations was omitted from the Conditions of this competition. The R.I.B.A. and the Assessor have been in consultation with the promoters, and it has been decided that in view of all the circumstances Members and Licentiates may compete on the conditions as published.

COMPETITION FOR PROPOSED INFANT SCHOOL AT FAULDHOUSE.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, Members and Licentiates are advised to take no part in the Competition.

IAN MACALISTER, *Secretary.*

Members' Column

MESSRS. HUNTLEY AND WOOD.

MR. C. GORDON HUNTLEY, A.M.I.E.E., M.I.H.V.E., and MR. WILLIAM W. WOOD, A.R.I.B.A., have entered into partnership and commenced practice as consulting engineers under the style of Huntley and Wood, at P. & O. House, Cockspur Street, London, S.W.1.

They are specialising in heating, ventilating and illuminating, and are prepared to receive trade catalogues. (Telephone : Gerrard 8494. Telegrams : Huntlinwud, Westrand, London.)

MESSRS. TUBBS, MESSEY, AND VAL MYER.

MESSRS. CYRIL B. TUBBS and A. A. MESSEY, of Craig's Court House, Whitehall, S.W.1, have taken into partnership MR. G. VAL MYER, A.R.I.B.A., late of 58 Marylebone Lane, Wigmore Street, W.1.

The style of the new firm will be Messrs. Tubbs, Messer and Val Myer, and the business of the firm will be carried on at Craig's Court House and 4a Sea Road, Bexhill-on-Sea. Telephone No. : Gerrard 4915 and Bexhill 489.

MR. W. S. HUXLEY.

MR. W. S. HUXLEY, M.C., F.R.I.B.A., has started practice at 20, Abingdon Villas, Kensington, W.8. Telephone : Western 228.

APPOINTMENTS.

WANTED, for a general practice, in Provinces, well-qualified Architect, with view to Partnership, or Purchase. Apply, Box 929, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP.

F.R.I.B.A., in ecclesiastical practice, would join young Architect with good general practice. Reply to Box No. 477, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

CHANGES OF ADDRESS.

Mr. JOHN C. T. MURRAY [F.] has removed his office address from 118 Cannon Street, E.C., to 35 Craven Street, Charing Cross, W.C.2.

Mr. P. W. HUBBARD [A.] will in future carry on his practice at 58 Haymarket, S.W., as from the 7th May.

Minutes XIII

SESSION 1922-23.

At the Twelfth General Meeting (Ordinary) of the Session 1922-23, held on Monday, 23 April 1923, at 8 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 17 Fellows (including 6 Members of the Council), 18 Associates (including 1 Member of the Council), 2 Licentiates, and a number of visitors.

The Minutes of the Eleventh Meeting, held on Monday, 9 April 1923, having been taken as read, were confirmed and signed by the President.

The Hon. Secretary announced the decease of :—

Mr. Edwin Thomas Hall, elected Associate 1881, Fellow 1885. Mr. Hall was elected a Member of Council in 1893, and served almost continuously until 1912, and was a Vice-President during the Sessions 1905 to 1909. He was a Member of the Practice Standing Committee from the year 1886 to 1898, and Chairman of the Committee from 1896 to 1898. Mr. Hall also served on the Board of Architectural Education from 1910 to 1913.

Mr. Joseph Douglass Mathews, elected Associate 1865, Fellow 1876, and transferred to the List of Retired Fellows at the end of last year. Mr. Douglass Mathews was a member of the Science Standing Committee from 1886 to 1891, and a member of the Practice Standing Committee from 1891 to 1911, and was Chairman of the Committee from 1898 to 1904. He was also a member of the Statutory Board of Examiners from 1879 until 1922, and was Vice-Chairman of the Board from 1900 to 1909. He was a Member of the Council during the Session 1904-1905.

Mr. Harry Inigo Triggs, elected Associate 1899. Godwin Bursar 1906. He was an Associate Member of the Council 1910 to 1912, and a Member of the Science Standing Committee 1908-9, the Literature Standing Committee 1909-10, and of the Art Standing Committee 1911-12.

Mr. Joseph Barker Daniel Wall, elected Associate 1876, Fellow 1889.

Mr. George Waymouth, elected Fellow 1885.

Mr. William Harrington Scrymgour, elected Associate 1881.

And it was RESOLVED that the regrets of the Institute for their loss be entered on the Minutes, and that a message of sympathy and condolence be conveyed to their relatives.

The following Member attending for the first time since his election was formally admitted by the President :—Mr. Horace R. Chanter [A.J.]

Mr. W. G. Newton, M.C. [A.J.], having read a Paper on "Theories Classical and Romantic," a discussion ensued, and on the motion of Professor A. M. Hind, Slade Professor of Fine Art in the University of Oxford, seconded by Mr. Sydney D. Kitson [F.J.], a vote of thanks was passed to Mr. Newton by acclamation, and was briefly responded to.

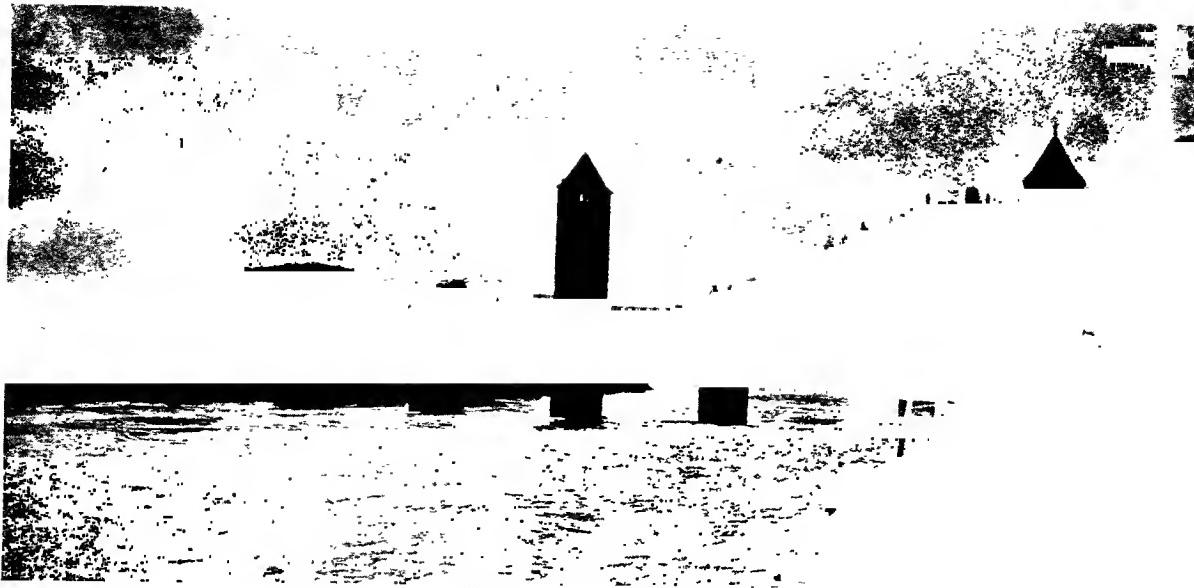
The proceedings closed at 9.55 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



CAHORS PONT VALENTRE

The Architecture of Provincial France

BY HENRY M. FLETCHER, M.A.

(Read before the Royal Institute of British Architects, Monday, 9 April 1923.)

FRANCE is a very large country, larger than anyone would suppose who has not tried to travel there. From the Belgian frontier at Dunkirk to the Spanish frontier beyond Perpignan is 600 miles, and from the Atlantic frontier at Brest to the Italian at Mentone is 675 miles. There is room for a deal of travel within that quadrilateral. And wherever you go there is architecture. An architect can hardly go wrong in France. It is presumptuous to tackle such a subject within the limits of a paper; but by confining myself to what I have actually seen and know I may be able to indicate some general characteristics, induce others to explore further, and arrive at some conclusions profitable by way of example or warning to our own practice.

Do not complain of a patchy treatment if practically everything I discuss or show you is to the west of a line drawn due north and south from Paris. The east I do not know; it remains a land of promise and hope. But, after all, the grand distinction is between north and south, cloud and sunshine, and while the east as a whole may show points of difference from the west as a whole, I do

not suppose the contrast of Nantes and Nancy, Bordeaux and Marseilles is nearly so sharp as that of Chartres and Albi, or Tours and Toulouse. So let us go ahead, persuaded that the France we shall visit is France indeed. It is the more likely because of all civilisations that of France, bequeathed by Rome, and shaped and stamped by Richelieu and Napoleon, is the most homogeneous.

Indeed, the most striking characteristic of France, urban and rural alike, is its Frenchness. In spite of what they say of the cosmopolitanism of our day, other civilisations may beat against France again and again for centuries without reducing one jot of that Frenchness. Paris is not France—Paris is Paris. And yet even there, right under the apse of Notre Dame, and separated only by one half of the Seine from the Hôtel de Ville, and by the other from the hill of Ste. Geneviève, lies the Ile St. Louis, an almost typical small provincial town of the humbler sort.

It is curious, but I think it is true, and when you have seen the examples I have to show I think you will agree, that architecturally the influence of this great civilisation on our own has been very small.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

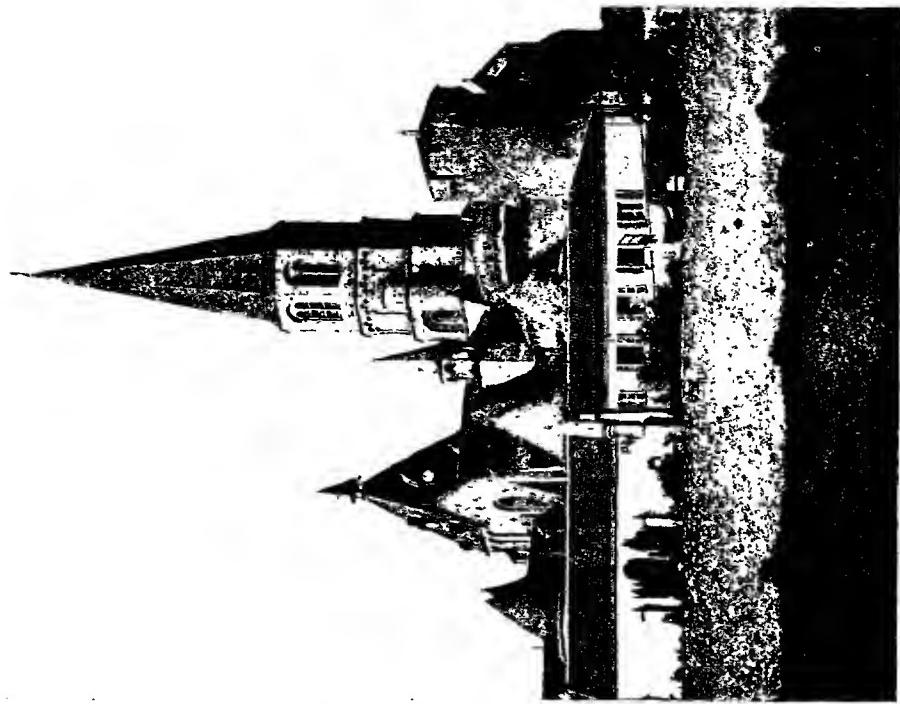
In the Middle Ages, of course, this influence was at its height. But even then it was exercised rather in lesser things than in greater, rather in detail than in spirit. You find it in the forms of arch and vault, in the use of flying buttresses and clustered piers—not much even in more intimate details such as mouldings, capitals and carvings. Turn to broader aspects, and contrasts are more striking than similarities. In France the chevet, in England the square east end; in France, height and verticality, in England, length and horizontal lines. Even more fundamental is the contrast between the Frenchman's love and the Englishman's disregard of logical perfection. Except in the eighteenth century, the most Latin period of our culture, our diffused interest in a number of things, our passion for detail, often makes it hard for us to carry a conception through to completion without being led astray into by-paths. In France, on the other hand, unity of conception and execution in buildings great and small was continually the aim of the builders, whether they attained it or not. It may be that this fundamental national difference is the reason why, ever since the Middle Ages, we have reached out beyond France to Italy for fresh inspiration. The Italians are not worried by the French passion for completeness, and are ready to leave a cathedral without a façade for centuries; and when they finally add the façade think nothing of proclaiming it an afterthought by rearing its gable 20 or 30 feet above the roof it professes to terminate. The Italian genius, in spite of its leaning towards the grandiose, is in some of its aspects akin to our own—irregular, casual, haphazard. We are a little frightened by this clear-sighted, penetrating, orderly Gallic spirit, and unreasonably incline to call it inhuman. Unreasonably, for indeed it is as full of fancy and playfulness and grotesquerie as our own. Only, the Frenchman refuses to admit that the part is greater than the whole. He keeps his eye on the ball, and will not be drawn aside by the daisies and straws and wormcasts before or behind it.

It follows that the picturesque is a much less integral part of French architecture than it is of our own, and more emphatically of German. It is rarely sought for its own sake—rarely, as they themselves say, *voulu*—but occurs rather as a by-product, arising out of accidents of site or conveniences of construction, not as a native element of design. Not that French towns and countrysides are devoid

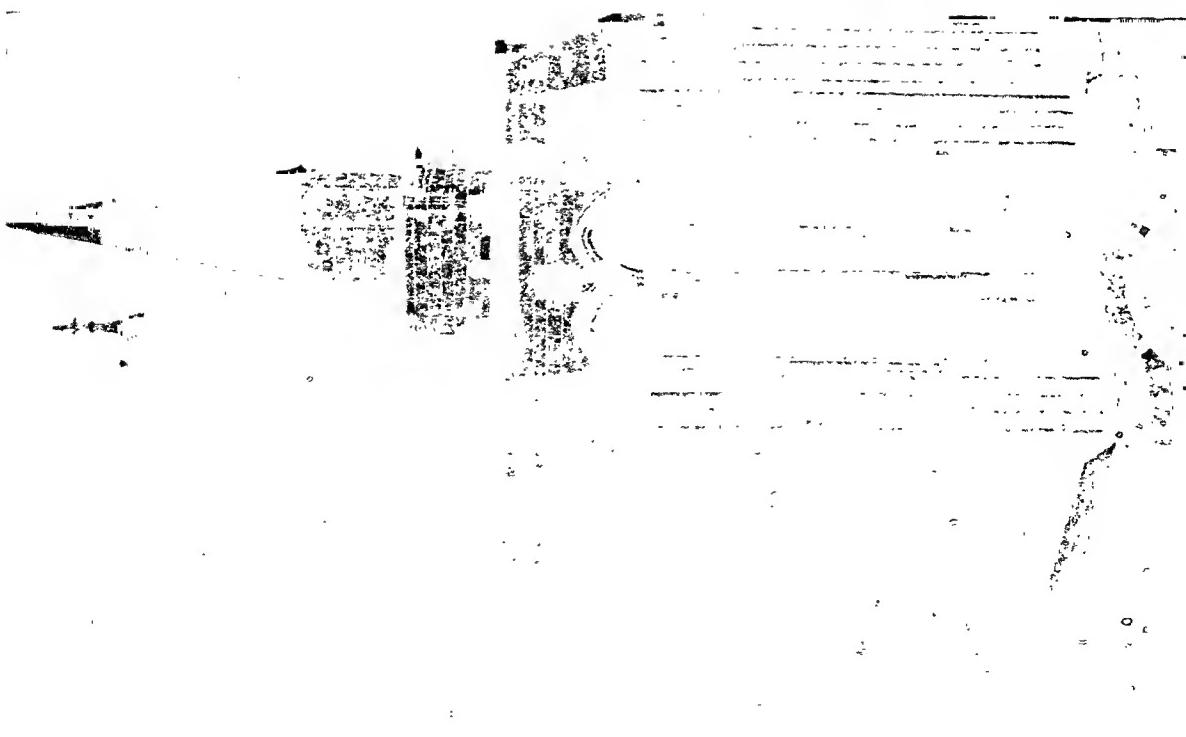
of picturesqueness. Far from it, and to me it is more enjoyable just because it occupies its proper place, produced by conditions, not controlling them. There is indeed a corner of France where you will find the intentional picturesque theatrically rampant, but the contrast goes to prove my point, for it is inhabited by a non-Gallic race. This is Brittany. The mystical Celtic genius revels in exaggerations; those bulging and bickering gables, barge-boards, bressummers and dormers are heady stuff, attractive especially to inexperience; but they soon cloy, and a return to the clean-cut lines and sweet reasonableness of such cities as Chartres, Bourges and Bordeaux is like a cool breeze after a feverish dream.

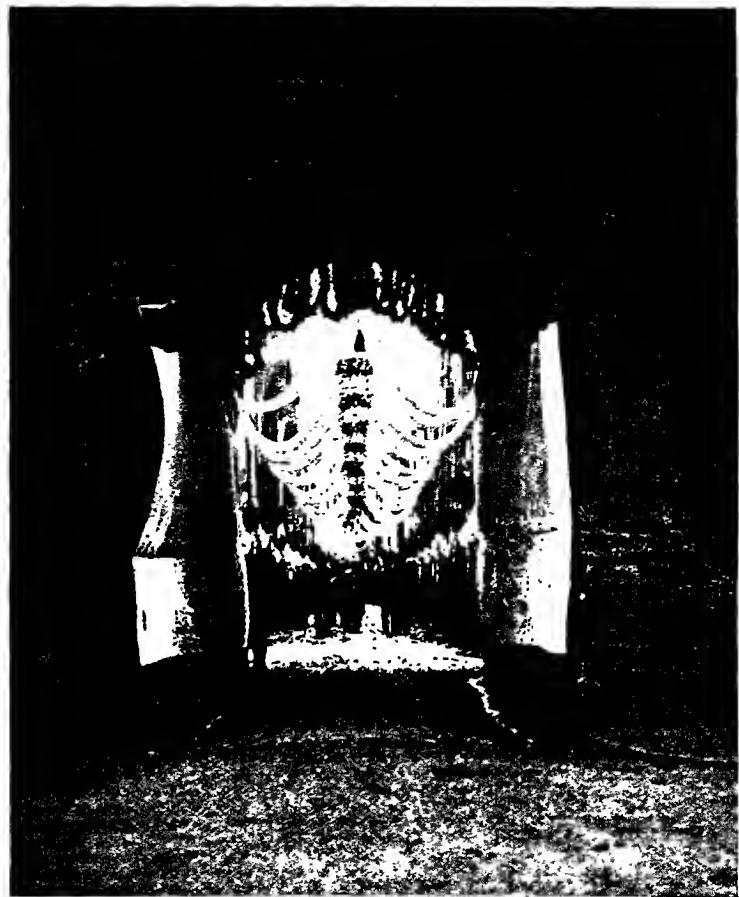
This moderation of emphasis in ordinary buildings has much to do with the harmony of French towns. I was struck last year in Bourges, a city of reticent distinction, which except for the Cathedral and the house of Jacques Cœur has mercifully escaped the restorer, by the ease with which houses of different centuries blend together. Bourges is rich in houses of the fifteenth and sixteenth centuries, but most of them, not being national monuments, have been treated in a human and friendly way, altered a bit here and there perhaps, patched here and there, painted and colourwashed as occasion required. The detail is kept so subordinate that it is not till you pass them close at hand that you become aware, from an ogee arch, the interpenetrating mouldings of a door-jamb or a grotesque head and shoulders on a corbel, of the age of the building. And this ease of bearing, this well-bred democracy, is made more natural by the smoothness of the transition, in France and especially in her vernacular architecture, from mediæval to Renaissance, and on into the seventeenth and eighteenth centuries. Leaving aside the great scholarly buildings, the Louvre and the châteaux of Touraine—and yet they too are French of the French—the change is largely one of detail, such as shapes and framings of windows and doors. The essentials change almost imperceptibly, if at all—the pitch of roofs, the proportion of roof to wall, the height of buildings, the spacing and size of window and door openings, the prevalent silver-grey colouring. It is the persistence of these characteristics that makes the Frenchness of French towns; it is in these especial characteristics that our own buildings are so markedly different, and it is this difference in essentials which, as I maintain, shows how

CHURCH AT LE DORAT



CHARTRES CATHEDRAL. S. TRANSEPT FROM S.W. TOWER





GUÉRANDE. STREET DECORATIONS FOR CORPUS CHRISTI



MONPAZIER. UNDER THE ARCADES

THE ARCHITECTURE OF PROVINCIAL FRANCE

little has been the influence of French architecture on our own. We have not the same continuity of tradition—in our villages the change from the half-timbered houses of the Middle Ages, with carved oak storey-posts, overhanging upper storeys, steep-pitched gables and roofs, and long low mullioned windows, to the red brick walls, the low roofs, often hidden behind a parapet, the tall narrow sash windows of William III and Anne, is far more violent, almost the change from one civilisation to another. Here too, time has brought a harmony, but in France time was hardly needed to mark the change.

The same absence of over-emphasis is to be observed in the *tours de force*, both of structure and design, which the French can accomplish almost unawares, with the easy grace of a perfect fencer, so that you have to be "in the know" to detect the difficulties they have mastered. For structure, you shall see presently a staircase in Tours Cathedral; for design, I think of a late-Gothic house in Bourges whose front wall, from the nature of the site, is strongly askew to the party-walls. It pleased the builders to work out all the window and door jambs, mullions and other features as if they were normal, not to the front, but to the party-walls. These features are quite complicated, with several orders of reveals, interpenetrating caps and bases, and all the other elaborations of the period. The resulting distortions may be more easily imagined than described—they might be called an exercise in solid isometric projection—yet with so easy a mastery is the whole thing carried through that I passed the house several times before realising that it was at all unusual, and probably not one observer in a hundred, apart from architects, would ever detect this astonishing feat of geometrical jugglery.

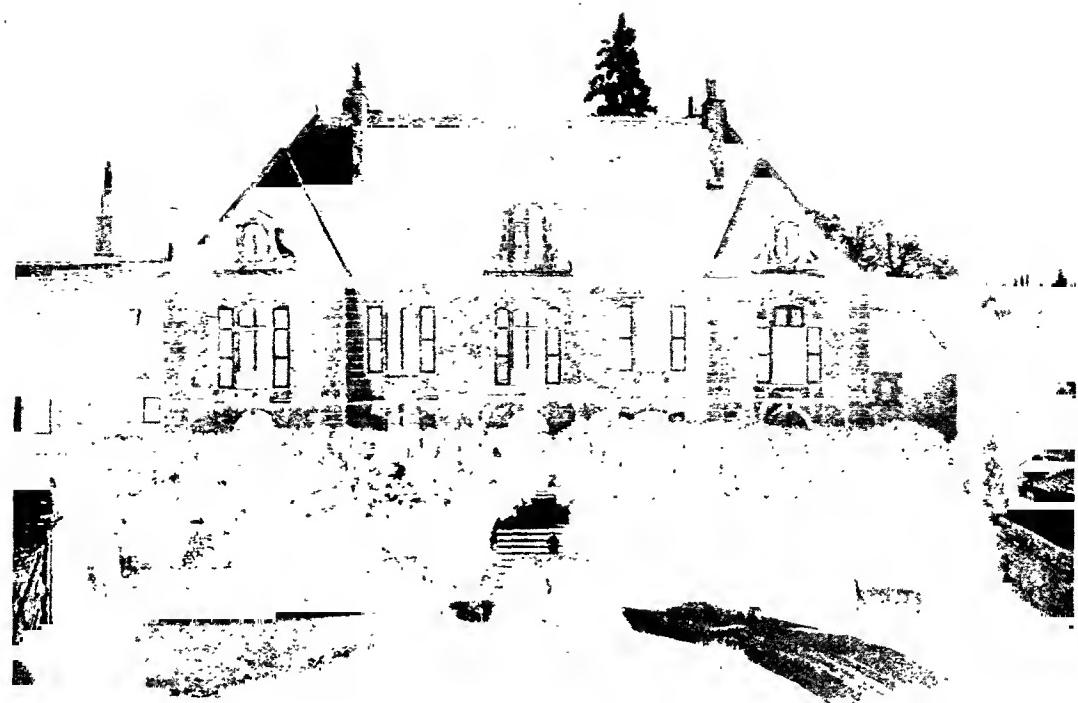
It was a work of pure supererogation, quite uncalled for by necessity, and must have arisen from the masons' sheer delight in the mysteries of their craft. Indeed, all the craftsmen seem to have shared this skill and enthusiasm. No problem is too hard for a French slater. You would think slate a plastic material, such is the ease with which they will turn any corner and cover any shape.

As already suggested, all Gaul is divided, not, as Cæsar commented, into three, but into two very distinct parts, north and south. In the region with which we are dealing you may take Limoges as the point of division. On the hither side the architecture has the familiar features of northern France,

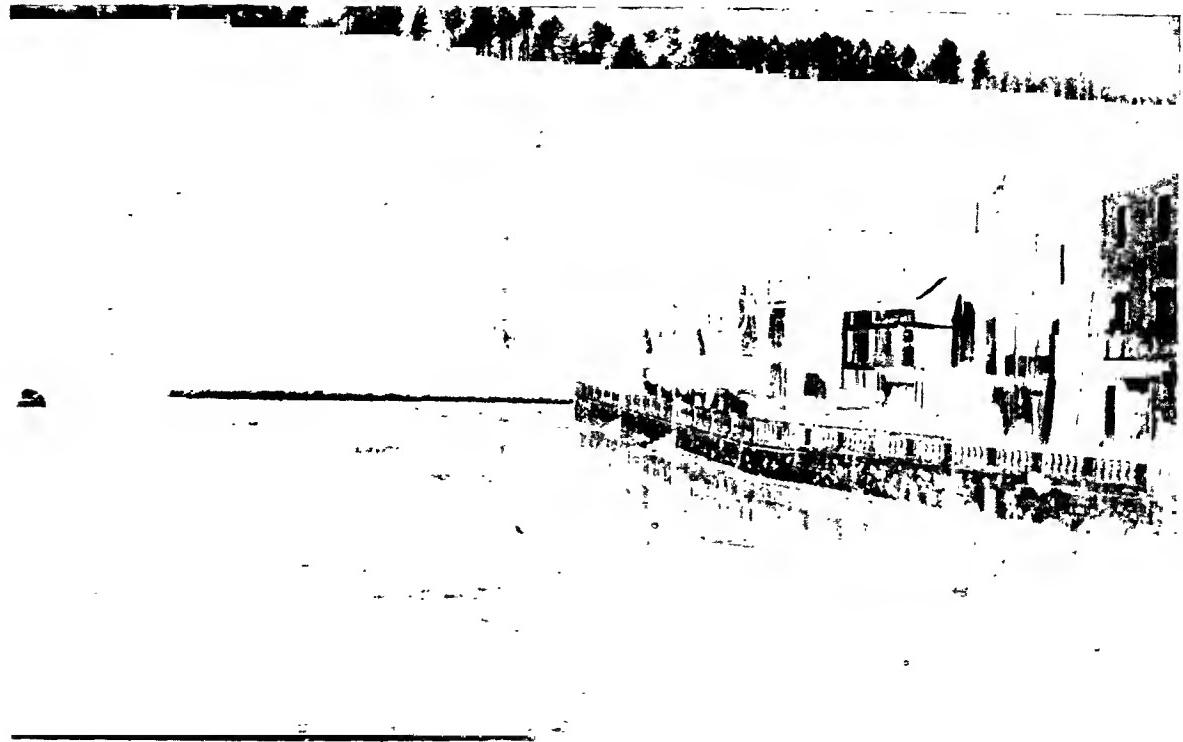
steep-pitched roofs with many dormers, and covered with slates, or more seldom with plain tiles, windows designed to catch the light, much timber framing, streets paved with cobbles and washed or swept to a reasonable cleanliness. On the further side, flat-pitched roofs covered with half-round tiles, and because of their pitch almost devoid of dormers, shadowy eaves, windows fewer and smaller, streets sparsely paved and abounding in heaps of ancient refuse. The scale of buildings, which in the main depends upon the height of storeys, increases as you go south. The scale in France is noticeably greater than in England, though even in the south it does not attain Italian majesty. Albi, for instance, in many respects is curiously like the brick towns of northern Italy. You find the same narrow twisting steep streets, the same vast overshadowing eaves, the same open galleries under the roofs, the same long, thin pink bricks. But the scale of everything except the Cathedral is definitely smaller. Roughly speaking, in ordinary domestic buildings the height of storeys here is from 8 to 10 feet, in France it is 12, and in Italy 15.

In the cathedrals, the abbeys and the greater churches the scale is definitely not smaller. That of Chartres is majestic beyond parallel. Again we find the sharp distinction between north and south. The north surpasses the English scale in height, the south in width. The choir of Le Mans is 110 feet high, the naves of Chartres and Bourges 120, of Amiens 140, and the height is three times the width, more or less. But at Bordeaux and Toulouse the nave is 60 feet wide, at Albi 62, and St. Vincent at Carcassonne, a mere parish church, I believe attains 70. In these churches the height is but one and a half times the width, more or less—indeed, in the curious nave of Toulouse Cathedral both dimensions are about 60 feet. The north expresses the aspiration of the Church, the south her all-embracingness.

It is commonly thought by the inexperienced that colour becomes richer as you leave England and go south. This is surely not true of France. The colour both of landscape and towns is lighter and fainter than ours. Foliage, even in the north, owing doubtless to the lesser humidity, is sparser and more feathery, grass is burnt up earlier in the year, and vines and olives show the underlying colour of the soil which our denser crops conceal. Even the gardens in France are almost wanting in turf.



MONTMORILLON (VIENNE). HOTEL DE MOUSSAC



BRANTÔME. THE RIVER DRONNE

THE ARCHITECTURE OF PROVINCIAL FRANCE

For all their stately beauty, English eyes miss those lakes of tender green, and find but a drouthy substitute in hay or grit. Only at evening or in wet weather do you see the heavy greens and rich purples of the misty English landscape. The colour of France finds its truest interpretation in Corot, of England in Constable. So in the towns, England leans to full warm tones, France to light and cool. Pale biscuit walls, silvery slate roofs, paint of every shade of grey—this is the colour scheme, rising

of French towns is less rich, less variegated, than ours, it has a rare and exquisite delicacy, too austere to be effeminate, restrained within a sort of smiling harmony.

There are colour effects within the churches, too. Apart from the greater buildings, many of the village churches in the south-west seem to have retained their original colouring, traditionally renewed, where the body of the building is washed with white or pale yellow, sometimes



TOURS CATHEDRAL. STAIRCASE IN N.W. TOWER

above the base of black that is provided by the dress of the inhabitants. Quite apart from the French passion for mourning weeds, which hangs with crape about a quarter of the population at any given moment, the colouring of a French crowd is always far more sober than ours. Even in the brick towns, where the colour-chord is fuller, the tones are paler than with us. In Toulouse and Albi the bricks tend to a dusty pink or salmon, the roof-tiles to a tawny orange with tones of grey, and the glare of southern sunlight bleaches all colour except in the shadows. On the whole, if the colour-scheme

with stone jointing in red or blue, and a fleur-de-lis or star used as a diaper, while the carved portions, capitals and arch-mouldings are picked out with heavy red and yellow ochres. At first sight this treatment comes with a shock to a severer Protestant taste, but after a while you come to perceive that its simple rusticity is in keeping with the rude Romanesque carving. The greater churches, like Notre Dame at Poitiers and the Abbey of St. Savin, are more elaborate and have mostly suffered frightful things at the hands of the restorers.

On the afflicting topic of restoration, let us touch

but lightly. Who are we that we should throw stones? At long last there are signs that the true philosophy of restoration—reverent repair, not re-building—is beginning to make headway even in the Commission of Historical Monuments. But one word of warning—never go to Périgueux. I have seen it, and know.

Why should we go to France?

themselves. But there is one pre-eminently, a part of experience, perhaps, rather than of education, which makes such a visit profitable to us. Commercialism, in the sense in which we Anglo-Saxons know it, has touched provincial France very lightly, if at all. I am not here to attack commercialism, but its most ardent champions may in their unguarded moments admit that some of its manifestations are



MONPAZIER. THE MARKET PLACE

For to admire and for to see,
For to behold this world so wide,
It never done no good to me,
But I can't drop it if I tried.

There are many of us who can't drop it and don't mean to try, preferring to hope that it may do them some good. Bacon thought it might. "Travaile," he says, "in the younger Sorte, is a Part of Education"; in the Elder, a Part of Experience." We have touched upon some of the ways in which a visit to France may do good to an architect. There are many others, such as stained glass, whereon much might be said, so much that they need a paper to

less delectable than others. Thus, it has made our towns dirty instead of clean, our air and our rivers thick and smelly instead of clear and fragrant, has sown our rural landscapes with two-dimensional cows, and is solving the housing problem by turning decent habitations of men into cinema theatres.

Now in most of France this has not yet come about, and perhaps never will come about, because the people care more about civilisation than luxury, that is, about clear rivers, smokeless air, conversation, well-tilled fields, the art of acting, crusty bread, non-chemical laundering and buildings that are not smothered under posters and bloated gilt

THE ARCHITECTURE OF PROVINCIAL FRANCE

autographs. In process of time and with the development of electricity we too may regain command and make mechanical invention a means to decent life rather than an end in itself. In preparation for such a victory of common sense, it behoves us to guard carefully our sense of the superfluousness of superfluities, to refresh our spirits by glimpses of a society that is satisfied with richer living and less complicated machinery of living than ours, to keep before our eyes, as a standard possible of attainment, the unsullied loveliness of architecture and countryside that still remains where commercialism is the servant and helper, not the master of the community. And I do not know where this loveliness can be more profoundly and delightfully studied than in provincial France.

Do not misunderstand me. I am not proposing to turn England into a social or architectural copy of France, nor France into a similar copy of England. The world would be duller if such an attempt succeeded, and messier if it failed. Each has its own characteristics, its own beauties, and at present its own uglinesses ; nor do I believe that we English

architects have much to learn from the modern architecture of provincial France. But from of old the two countries have had to face many of the same architectural problems, and it is surely a point of wisdom in tackling a problem to consider how your neighbour has dealt with it. Whether you adopt his method or not, you have at least increased your armoury. Direct cribbing we tried in the days of the Gothic revival, and it did not do. The genius of the two countries is too different. Nor am I sure that the occasional importations of Beaux Arts design attempted in our own day look altogether happy in English surroundings. That we may learn much from the study of French buildings of all ages I am convinced, but our erudition should manifest itself subtly, rather by indirect reference than by quotation. And having thus declared against quotation, let me defend my position, however inconsistently, by another from Bacon :— “ When a Travailer returneth home . . . let it appeare, that he doth not change his Country Manners, for those of forraigne Parts ; But onely, prick in some Flowers, of that he hath Learned abroad, into the Customes of his owne Country.”

Discussion

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR

Mr. EDWARD WARREN[F.]: I do not think I ever remember hearing, within the walls of this Institute, a paper which has been to me so delightful and so refreshing. Mr. Fletcher is evidently an ardent lover of France and French architecture, and I hope he will permit me to claim equal rights in that direction. For the last thirty years there has never been a year, even during the full tide of the war, when I did not spend at least a few days in that country. I have a great fondness for the Dordogne and am particularly fond of Périgueux, of which he showed us a very remarkable and beautiful Renaissance house on the quay. In the spring of 1918 I was sent to Périgueux to assist the American Army to build a hospital of concrete, and, in the intervals of my labours, I was able to study this beautiful house. I do not think anybody who loves France and takes pleasant little holidays there, going about from town to town, can possibly go wrong. North, south, east and west in France you will find objects of interest and charm. You find yourself among pleasant people and pleasant colouring, the greys, the buffs, the blues and the tall old trees ; every French town has its own character, but they all present the typical character which Mr. Fletcher associates with them : the narrow streets with their tall houses, the yellows, buffs and greys, the

cobble stones, the signs of the red cigars over the *débits de tabac* and the pleasant scenes and lively conversations which are going on in the old streets. It is all very delightful, friendly and charming.

But to take France seriously, its grand architecture, particularly its mediæval architecture, is another thing. There never was anything carried to a higher degree of perfection than early French Gothic. Think of the stateliness of Chartres, with its fine severity, which is akin to that of Greek work, though different ; and the splendidly courageous manner in which the French worked ; they feared nothing in the way of roof angle, or height of spire, as Mr. Fletcher has shown us. In these things they were ultra-courageous, and accomplished tremendous feats. There was just one thing Mr. Fletcher said with which I did not entirely agree : he said he thought that French civilisation had but little influence on our own and others. I think it influenced ours enormously in the early days of mediæval times. To begin with, 1066 gave us the unmixed blessing of the Norman Conquest. It brought us civilisation, architecture, arboriculture, law and many other things, and it left us in close contact with France. England, being in those days a poor country and only able to build on an impoverished scale, built small for the most

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

part. The French scale rubbed itself off, however, on the Continent as a whole, and even in small Continental countries like Belgium the scale was surprisingly large in comparison with our own. In England, perhaps on account of the relative smallness of the country, we built on a humbler scale, and here it is comparatively rare to find anything like a great parish church. We have, however, some churches in England which are great, and they were mostly influenced by France. That is notably the case with Lincoln Cathedral, which you will see, if you study it carefully, has much of the character of Chartres, and has a similar inspiring effect. I think that in Gothic architecture our best elements were derived directly from France ; and what we call Early English is really Early French ; it is extraordinarily akin to the coeval work of North and North-West France.

Mr. Fletcher carried us far into the charming country along the banks of the Dordogne, and into the Bastide amongst those delightful towns of Edward II and Edward III ; a country which I have travelled through with the greatest possible enjoyment, and which I hope to travel through again. He struck what was to me a friendly note when he showed the slides of Richelieu, with its extraordinary gates. I wish he had shown us some of those houses which were built for the gentlemen of the Cardinal's household on both sides of the street. Those are very perfect, each with its arched doorway, its tall windows and its dormers, very complete and stately little mansions.

What strikes me with renewed force every time I go to France is that France, all the upheaval of the Revolution notwithstanding, with all the changes in the country which have taken place, and with all the courage, freedom and audacity of French thought, is yet an intensely conservative country ; it has changed in essentials so little. We regard ourselves as slow-moving and conservative, but England has been remade over and over again in manners and customs, in a way that France never has. I know no more delightful holiday than to go with a sketch-book from small French town to small French town, staying always at the little hotels, where one is charmingly treated, and with their most charming bedrooms with brick floors. Everything I encounter on a French holiday is delightful, and I only hope all of you are familiar with France, or, if you are not, that you will take immediate steps to become so with Provincial France ; and that you will not regard Paris as representatively French, or essentially France ; or France as an appanage of Paris. France is one of the most delightful countries in the world, a country particularly instructive for the architect, a country to spend as many weeks of holiday in as possible. May she remain conservative and preserve her fine architecture, her manners and customs, and her admirable cuisine.

I have great pleasure in proposing a most cordial vote of thanks to Mr. Fletcher.

Mr. FERNAND BILLEREY : I am not certain which feeling to express most after this very pleasant lecture by Mr. Fletcher ; whether it is pleasure, or whether it is confusion : pleasure which probably you would feel if you were in Paris listening to a French architect showing, with delightful illustrations, such affectionate interest in and knowledge of English architecture as Mr. Fletcher has shown us of French architecture to-night ; but confusion also because of the knowledge expressed of things in one's own country which one knows so little about. It was a great pleasure to hear such a friendly criticism of French work, of the ability of the French craftsman, the picturesqueness of French Provincial architecture, which has such a different tone or touch from that which we are used to in monumental architecture. The selection of the subject and of the illustrations, as well as the lecture itself, constitutes a tuition in architecture, which I should like to be known not only here in London, but also in France, because I am sure it would be a revelation to French people of their own country.

Lt.-Col. H. P. L. CART DE LAFONTAINE [A.] : I think Mr. Fletcher has dealt so thoroughly with the subject that very little remains to be added, except that we must all very deeply appreciate the insight he has given us. I have had the opportunity of going many times to France, but the majority of the places of which he showed us illustrations to-night I have not yet seen, although I hope to. A fact which may interest Mr. Fletcher, if he gets the opportunity of going there, is that in the Bar le Duc region, all the roofs are of a very flat order. I do not know how that came into the scheme of things, but it has always been so there from the beginning. Another delightful town is Nancy, where there is the most perfect and characteristic piece of architectural composition which I know in France.

Mr. ARTHUR DAVIS [F.] : Mr. Fletcher has pointed out, and I thoroughly agree with him, that in France you seem to get evidences of not only the architecture, but also of the climate of almost every country in Europe. In Normandy you find our English flowers and the deep green vegetation ; in the south you get the Italian kind of landscape ; in the east you get the German ; in the north you have the climate and architecture almost of Cornwall. If anybody wants to study European architecture, he will be able to find examples in France, in every town.

I think it is a pity Mr. Fletcher did not show us the beautiful front of Chartres Cathedral ; it is one of the most delightful pieces of architecture in the world. I have often, while in France, heard architects describe French cathedrals as being classic buildings. In some respects this is true ; the western front of Notre Dame can be included as one of the classic buildings of the

THE ARCHITECTURE OF PROVINCIAL FRANCE

world ; it has the proportion, sobriety, depth and balance of classic works, and at the same time all the beauty of a mediæval building.

I have much pleasure in supporting the vote of thanks to Mr. Fletcher for his Paper.

The PRESIDENT : A great many years ago I saw Pennell's etching of Le Puy, and I said to myself, "The man is a liar." It struck me, having come to that conclusion, that it would be a fine thing to see whether he was a liar or not. When I got to Le Puy, I found that Pennell was a liar to this extent only, that, having drawn his marvellous drawing on a copper plate, he had got it reversed, but, with that exception, he was a perfectly truthful man. Le Puy is in truth a wonderful place, and I was not long there before I was smitten with the desire to go up by the arduous ascent to the top of the very pointed hill of St. Michael. I now realise that the spirit which took me up there was a spirit unknown to me then but now recognised as Mr. Fletcher's spirit inducing me to make a plan of the church at the top. And I was struck, as you, Mr. Fletcher, were struck, by the marvellous way in which that plan is, not laid out, but, so to speak, poised, on the rugged sloping summit. The very exiguous structure on that hill is a marvellous instance of how man adapts himself to Nature.

I do not want to feel that we have been led away by your beautiful slides, Mr. Fletcher, from the very interesting words which preceded them. I feel, ladies and gentlemen, that Mr. Fletcher has looked philosophically on French architecture, and on those differences of national character which produce the differences between their architecture and ours. I want Mr. Fletcher, when he is thinking philosophically on this subject in the future, to ask himself whether there is not something almost psychological in the difference between continents and islands which accounts for the difference in character as between the two nations. I think something comes from the mere fact of living on a continent which affects the national character ; that it is not a mere question between insularity and the living in larger spaces, it is something more radical than that. It changes for one thing the character of the rivers, making the rivers of the continent larger ; there they have a longer run, they can do more business, and they grow to a larger, more menacing growth than our short-lived rivers can. I am not sure I agree with Mr. Fletcher as to the extent to which the rivers of France are tamed by the natives. I feel that the rivers are the masters of the situation ; I am not sure they are so friendly as our rivers. Some seem to be monsters which romp almost savagely through the towns and have it all their own way.

I now put the vote of thanks, which I know you will receive by your applause.

Mr. FLETCHER (in reply) : Thank you very much for the kind way in which you have received my Paper.

There are one or two matters I should like briefly to comment upon. With what Mr. Warren said about our debt to France I entirely agree. It is difficult always to say what would have happened if what did happen had not happened, but it seems probable we should have developed on different lines if it had not been for France. I do not think it was chronic poverty which prevented us from building high ; I think there was something in us which made us not care to do so. We like to see long level lines, very long buildings disappearing in the distance, whereas the French like to feel they are under one of the most magnificent and complete creations that the human race has ever thought of. Of course, as far as detail goes I agree, though we did translate it and not merely quote it. I think that in the essentials—the preference for horizontality and the disregard of completion, and that sort of thing—we took our own line, just because we were ourselves.

Mr. Davis criticised me for not showing the front of Chartres. I tried rather to steer clear of the things I thought everybody knew ; the views of cathedrals I showed you were rather odd views, interesting because they were taken from odd angles. I agree with him that the view of Chartres as you come upon it round the corner at the end of that little *place*, is one of the most overwhelming things in the world ; it is perhaps too overwhelming to give due effect on a slide ; you have to see it for yourself. And, after all, it is pretty well known.

Another thing I want to apologise for is the almost complete absence of eighteenth century examples among the slides I showed. I had no particularly good photographs of eighteenth century work ; but there is delightful work in all these towns, especially a wonderful house at Nantes on the quay, with a series of iron balconies. The one above the ground floor spreads across five windows, the width of the house, with a charming rococo iron balustrade. The next one, two storeys higher, goes across three windows, and the top one is one window wide. It is a delightful and piquant composition.

And there is another word I would like to say, which has not so much to do with architecture. That is, if you go, when you are in France, and talk to the people in the hotels, you will find them very interesting. The French *tâble d'hôte*, except in the south, is much more silent than ours ; the French people there do not speak to anybody ; they settle down to work, and they work hard for a short time, and then go away, and they think a lot about what they are eating. But they are ready to talk if you talk to them, and the commercial traveller is often an interesting man, with independent ideas of his own, and you can get a lot of architectural "tips" from him.

An Architect's Handbook of Civic Art*

By RAYMOND UNWIN [F.]

Dr. Hegemann and Mr. Peets have rendered a service to architects and town planners in collecting such a mass of examples as are given in this volume, illustrating the various sections of civic art as carried out or proposed in many countries and at various periods. A number of the illustrations are necessarily familiar, and to be found in previous volumes ; but many are new, a number are original studies of various problems, and others are only to be found by hunting through a large number of not too accessible books. To have them collected in one volume, and provided with a critical and informing commentary, is a convenience for which those practising or studying civic art may be grateful. Fredensborg Palace, giving in a simplified form the treatment adopted by the four subjects of the King of Denmark who built, through co-operative zeal and devotion to their King, the great Amalienberg Platz ; and the plans illustrating the connections between the charming little town of Richelieu and the great palace of the cardinal, are examples of the less familiar illustrations with which this volume abounds.

Dr. Hegemann is known as the collector of the extensive Town Planning Exhibitions that were held in Berlin and Düsseldorf, from which much of the material included in the R.I.B.A. Exhibition in 1910 was selected ; he had already contributed to town planning literature three large volumes describing and illustrating the main exhibits which were then collected, before he took up his abode in America.

In the critical commentary of the present volume, Dr. Hegemann seeks incidentally to place the work of Camillo Sitte in a fairer light. The issue in Vienna in 1889 of Camillo Sitte's book, *Der Städtebau nach seinen künstlerischen Grundsätzen*, in which he analysed and discussed the reasons for the high degree of picturesque effect to be found in most mediæval cities, produced a prompt reaction from the unimaginative geometrical system of planning which had been common throughout Europe for a period previous to that date. It was not unnatural that many of Sitte's followers should mistake his analysis of the causes of the picturesque for a commendation of their reproduction as suitable for modern times. There grew up, indeed, schools of self-styled followers of Sitte who carried this idea of copying mediæval conditions to a ludicrous extreme, and for a time brought discredit upon his views. I think it possible that Dr. Hegemann has to some extent overstated the degree to which Camillo Sitte was able to detach his practice of modern town planning from the ideas associated with his masterly analysis of the me-

diæval picturesque. That is, however, a matter of minor importance, and it is only fair that the value of Camillo Sitte's work should be recognised. He it was who really brought home to the modern practising architect in Central Europe the fact that town planning did not consist merely in designing and laying down lines of street on the flat, but that the plan must be thought of in the terms of the buildings which would arise upon the sites laid out on it ; and that unless the town planner could visualise the views and the vistas, the street pictures and the place groups of which he was laying down the foundation, his work, however practically useful, could contain little of art. Dr. Hegemann, who himself has become increasingly a devotee of the classical style of treatment, following in this and profiting by the work done by Dr. Brinckmann, includes a number of examples from that writer's books, some from *Platz und Monument*, first published in Berlin in 1908, of which a third and enlarged edition has quite recently been issued. Dr. Brinckmann was one of the first to recall Continental town planners from the wriggles of those who were devoted exclusively to the beauty of the curved line, and the dodges of others who were bent on the creation of accidental picturesque effects. The development of German town planning from about 1875 until its activity was arrested by the Great War is a particularly interesting study, because, within a comparatively small compass, it illustrates both the qualities and the defects of the German character and the German method of dealing with such subjects : their thoroughness and their efficiency, on the one hand, and the almost childlike faith with which they follow to its logical conclusion, sometimes in absurdity, any theory which they have once accepted as being true. Though the controversies between the styles of town planning have raged most fiercely, and been expressed most voluminously in the German language, it must not be assumed that Dr. Hegemann and Mr. Peets' book deals exclusively or mainly with German examples. They have drawn from all parts of the world. There are large sections dealing with town planning in America, to which the authors by their practice are now contributing ; also with Italian, French, English and Scandinavian examples, each having a character and an interest of its own. The examples are mainly grouped under the heading of subjects, such as " Plaza and Court Design in Europe," " The Grouping of Buildings in America," " Architectural Street Design," " Garden Art as a Civic Art," " City Plans as Unified Designs." There is a separate chapter on " The Plan of Washington," explaining departures that have taken place from L'Enfant's original layout, and criticising some of the present

* *The American Vitruvius. An Architect's Handbook of Civic Art.* Werner Hegemann and Elbert Peets.

REVIEW

proposals. The recent completion of the new Lincoln Memorial Building has added a most impressive and beautiful structure to that wonderful group which forms the heart of Washington. Standing recently on the steps of this memorial shrine, I was, however, somewhat disturbed by an apparent lack of control of the outer fringes of this great city. Both from the Capitol and from other of the central buildings, the views of the surrounding district of Washington are very beautiful. It would be most unfortunate if any lack of proper guidance in the development of the outer ring should lead to the destruction of this beautiful setting for the great city.

While I would have preferred a book somewhat less bulky than that under consideration, and perhaps divided into two or three volumes, in which one could have browsed with greater ease, I am grateful for the collection, and perhaps publishing considerations have influenced form.

Review

DETAILS OF SCOTTISH DOMESTIC ARCHITECTURE. Published by *The Edinburgh Architectural Association*. £3 3s. [Edinburgh : George Waterston & Sons, Ltd.]

This is a welcome addition to our books on the early Renaissance. It is attractive both in size and appearance. The drawings maintain a high standard and are excellently reproduced. The introduction and descriptive text by Mr. James Gillespie are models of clarity and conciseness.

The volume is dedicated to the late Sir Rowand Anderson and is a worthy memorial to his consistent efforts to advance architecture through the study of the monuments of the past. In a sense it supplements the valuable portfolios which we possess on Scottish architecture published by the National Art Survey of Scotland.

One fraternal note of criticism is permissible with respect to the complete representation of the subjects illustrated. In architecture no detail or accessory can be considered as satisfactory if it is not appropriate. Its beauty is qualified by its setting and environment. The contributors are no doubt familiar with the surroundings of the various objects delineated, but the reader is not always so fortunate. If complete information were invariably given on the drawings as to the height of the rooms containing ornamental ceilings and of the position of belfries, turrets, dormers, etc., the architectural value of the details would be better appreciated.

HERBERT WIGGLESWORTH [F.].

The Earl of Crawford and Balcarres [Hon. Fellow] has been elected President of the London Society in succession to the late Earl of Plymouth.

Advisory Fine Arts Commission

SPEECHES BY SIR ASTON WEBB AND THE LORD CHANCELLOR.

Sir Aston Webb, P.R.A., in the course of his speech at the Royal Academy Banquet proposing the toast of "His Majesty's Ministers," made an interesting announcement with regard to a proposal for the formation of an Advisory Commission of the Fine Arts. The Lord Chancellor (Viscount Cave), in replying to the toast, also referred to the matter.

Sir Aston Webb said: The Academy itself is happily not a State-aided institution, though this fine site on which we have built our galleries we owe to the State. We are a self-supporting institution, though not altogether without difficulty in the times we have lately gone through. Art is State-aided in most countries, and sometimes entirely State-maintained ; it is not so here. While there are many matters connected with Art continually arising and requiring decision, we recognise that it is impossible for His Majesty's Ministers, with their multifarious and urgent duties, to give much attention to them, but we are very anxious to see an Advisory Commission of the Fine Arts with Government approval. I understand the Government are considering at the present moment the possibility of creating a Commission of Fine Arts somewhat on the American lines to advise on all matters which may arise affecting the æsthetic amenities of our towns and countryside. Such Commissions would be advisory only, and would have no executive power. The cost of this would be extremely small. Fine Art Commissions on these lines have been at work in the United States for some time with great success and utility, and we believe they would have the same results here.

We should like to see some steps taken towards a great National War Memorial to commemorate the Great War. We have Trafalgar Square and Nelson's Column, and Waterloo Place and Waterloo Bridge, to commemorate the great wars of last century : are the battle of Jutland and the feat of Zeebrugge, the battles on the Marne and the Somme, at Vimy and the Dardanelles, to go unrecorded in this country for the inspiration of our successors ? We should also like to see increased encouragement given to artists by the Government for the decoration of their public buildings. We hope that means may be taken to ensure that in the extensive building programme being organised by the Government care may be exercised to secure that they may be an attraction to the dull suburbs of our towns instead of the reverse, for beauty is necessary to the happiness and contentment of the people.

The Lord Chancellor, in the course of his reply, said : I know of the proposal, to which the President has referred, to form an Advisory Commission of the Fine Arts, to which Governments and public authorities

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

may have recourse in matters relating to building or planning, or to the countryside or matters of that kind. That proposal is before the Cabinet, but there still hovers over that body the spectre of my friend Sir Eric Geddes, and I do not quite know what that spectre may have to say to this proposal. Speaking for myself, I strongly hope that something will come of the proposal. If so, I do not suppose that every public building will have the same elements of strength and of beauty as, for instance, the Admiralty Arch ; nor do I suppose that every house, with or without a parlour, will be like that depicted in a room in this building ; but I do think we may get something nearer to our ideals, and I believe if such a body existed now, or had existed earlier, the proposal recently made from Croydon would not have lasted for a week. With regard to the National Memorial of the War, I will only say I heard it suggested, as you did, with the deepest interest, and I have no doubt it will be considered very seriously, and that all the weight will be given to the consideration that is due to it.

The Housing Bill

POWER TO REVOKE BY-LAWS.*

By THE PRESIDENT (MR. PAUL WATER-HOUSE, M.A.).

The Government's Housing Bill contains many provisions which will be controversial, but there is one clause in the Bill to which I wish to draw attention—namely, Clause 13—since it deals with a matter of great interest to those connected with any class of building and land development in a manner which should not give rise to any controversy. The proposed clause is as follows :—

"The Housing, Town Planning, etc., Act, 1909, shall have effect as if for section 44 thereof the following section were substituted :—

"If the Minister is satisfied, by local inquiry or otherwise, that the erection of any buildings within any borough or urban or rural district is, or is likely to be, unreasonably impeded in consequence of any by-laws with respect to new streets or buildings in force therein, the Minister may require the local authority to revoke such by-laws or to make such new by-laws as he may consider necessary for the removal of the impediment. If the local authority do not within three months after such requisition comply therewith the Minister may himself revoke such by-laws, and make such new by-laws as he may consider necessary for the removal of the impediment, and such new by-laws shall have effect as if they had been duly made by the local authority and confirmed by the Minister."

This clause embodies no new principle ; it merely seeks to render workable a principle adopted by Parliament fourteen years ago, by re-enacting section 44 of the Housing, Town Planning, etc., Act, 1909, in a form to render it applicable to any building.

As the Departmental Committee on Building By-laws state in paragraph 35 of their Report (Cd. 9213 of 1918),

* A letter from the President which was addressed to and appeared in the *Times*, on 27 April.

the section referred to "was undoubtedly intended by Parliament, and believed by its authors, to give an effective remedy" where by-laws unreasonably impeded the erection of buildings. It has, however, two defects of draftsmanship which the Committee discussed at length. These, say the Committee, "have rendered the section nugatory in practice. Very little amendment seems to be required to make it satisfactory in future . . . and we recommend that the (Local Government) Board . . . should at once seek from Parliament the repeal of the words which have led to difficulty." All building owners and architects know the kind of trouble which obsolete by-laws cause in practice, but (to quote the Departmental Committee again) :—

"Where old by-laws are in force they are not only an obstacle to actual building and development ; in the hands of an authority which is not inclined to progress they can be used as a weapon to secure the confirmation of fresh obstructive by-laws which would otherwise not be allowed."

Clause 13 of the new Housing Bill will remedy this situation by conferring on the Minister of Health a power in aid of building which the Departmental Committee unanimously urged he should possess. That Committee had as Chairman Mr. Stephen Walsh (now senior Vice-Chairman of the Labour Party) ; it comprised a Conservative Minister, a Liberal member and ex-member of the House of Commons, and direct representatives of the associations of municipal corporations, urban district councils, rural district councils, and municipal and county engineers. Other members represented housing and town planning associations and other expert bodies, so that the Committee spoke with exceptional and entirely non-party authority. It pressed the reform (which is at length embodied in Clause 13 of the Government's present Bill) as "an essential part of the work of reconstruction," and if that was true in 1918 it is certainly no less true to-day.

Fears have been expressed in some quarters that this clause in the Bill will permit erections of any kind in any place. This is not so, but it will enable the Minister to enforce the series of model by-laws approved by the Departmental Committee and allow these to be revised from time to time, and kept in accord with the progressive science of building.

Correspondence

MR. PERKS AND THE EMERGENCY COMMITTEE.

To the Editor, JOURNAL R.I.B.A.—

SIR,—As Mr. Perks persists in misrepresenting in the Press the views of the 1922 Emergency Committee's candidates, I am requested by them to state :—

1. That they have no intention of "shattering the examination system," and that they regard the position of the Associate who has qualified by examination as inviolable.

2. That the sentence "bringing of all the architects of the United Kingdom into membership of the R.I.B.A." was, as Mr. Perks knows perfectly well, taken from a report which was particularly careful to de-

CORRESPONDENCE

fine the word "Architect," where used in the report, as referring only to the properly qualified man.

It should also be understood that the 1922 Emergency Committee's candidates are *not* standing for any particular method of obtaining registration and are *not* pledged to support the old Unification Committee's scheme, but they *are* pledged to consult the different interests concerned before committing the R.I.B.A. to definite proposals.—I am, yours faithfully,

MAURICE E. WEBB [F].

Hon. Sec. 1922 Emergency Committee.

CHARTER, COUNCIL, OR ELECTION: WHICH?
To the Editor, JOURNAL R.I.B.A.,—

SIR,—On 10 February a letter appeared in the JOURNAL from Major Corlette, in which he pointed out that our Council "has no authority but by Resolution of the Royal Institute." In the following issue I asked if, as a Member of the Institute advocating correct procedure, and serving, moreover, on the so-called Unification Committee, he would explain why a decision arrived at by the latter (an external, composite body, not directly responsible to the Institute at all) was not submitted for approval by the general body before the principle involved was worked upon; having in view the circumstance that that decision, if ever carried out, would vitally affect the character of the Institute and entirely change, for the worse, the value of its examinations. In Major Corlette's "reply" he professes that the resolution purposing to admit "all Architects of the United Kingdom into the Institute" was of the nature of an academical or debating society's decision—though he has always appeared quite ready to accept it as sufficient authority for (if necessary) years of finessing on points of detail, and seemed distressed when a certain, and, as I think, fortunate, election result swept the Unification Committee's futilities aside. His letter, indeed, entirely avoids the issue that was put to him, and covers the omission with a padding of pontifical assumptions and somewhat questionable humour that has no interest for me.

What does, and will, matter is that those who think like Major Corlette shall be prevented from flouting the interests and wishes of the General Body of our Members, to the destruction of the basic idea on which the Institute was founded nearly ninety years ago, and which means so much for the future of Architecture. Some day—we continue to hope—our miserable politics may cease to dominate Institute affairs, and admit of consideration being given once more to things that really matter.—Yours faithfully,

FREDK. R. HIORNS [F].

CHARTER, COUNCIL, OR INSTITUTE: WHICH?
To the Editor, JOURNAL R.I.B.A.,—

SIR,—Quite apart from the party politics of this very contentious question, may I be allowed space to say that I read Major Corlette's reply to Mr. F. R. Hiorns in the JOURNAL of 5 April 1923 with considerable regret?

Surely each side is prepared to declare that it is striving conscientiously for what its supporters consider to be the best interests of architecture and the Institute, and to credit one another with an equal honesty of purpose.

Is it, therefore, necessary for members of the Institute, publicly in their JOURNAL, to attempt to discredit one another's intelligence upon a matter the eventual settle-

ment of which must depend upon its being fairly and convincingly argued out?

I think also that Major Corlette's numerous references to a familiar old Spanish classic may very well have caused some vexation, or even distress, amongst those members of the Institute who happen to differ from him (which I am sure he would not intend), whilst they are certainly not designed with a view to stimulating the growth of the requisite measure of agreement which will be required before a final settlement of the matter can be reached, and upon which the views of members are so diametrically opposed.—Yours faithfully,

W. E. BROOKS [A.]

LICENTIATE R.I.B.A.

*St. Pierre, Mount Ephraim Road,
Tunbridge Wells,
7 May 1923.*

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I observed in the last issue of the JOURNAL a notice to Licentiates that the Council objects to the affixes Lic.R.I.B.A. and L.R.I.B.A. and reminding them that they signed a form agreeing not to use any other affix than "Licentiate R.I.B.A."

Is this latter statement wholly correct? I believe that some time after Licentiates had been admitted such a clause was framed and all subsequently elected Licentiates were required to sign the same. Without wishing to question the right of the Council to lay down such a rule, I would respectfully ask what is the real reason for insisting upon what to many people appears to be an unmeaning and unnecessary condition. The abbreviation is used by other professions, societies, etc., such as the Medical and Musical, the College of Preceptors, and so forth.

Business men and the average person are not likely to write such a sprawl across their letters and envelopes, I am told, and I can well believe it. I think many of us would prefer to use no affix at all if there is to be such a peculiar attitude presented to the Licentiate.

In the Charter I observe it states that a Licentiate *may* use after his name the affix Licentiate R.I.B.A. If the intention is to make it thereby a mark of inferiority, then I would remind the Council that to my own knowledge many Licentiates enjoy a larger practice and have carried out more important works than several Fellows and Associates. I suggest that, in the interests of the "unity of the profession," this subject be considered when dealing with the question of registration.—I am, Sir, yours faithfully,

HENRY ELWIG, *Licentiate.*

THE LONDON COUNTY HALL.

10 April 1923.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—My attention has been drawn to an article in your issue of the 24th March, supplementing the paper by Mr. Ralph Knott and Mr. W. E. Riley, published in the JOURNAL of the 27th January last, in which they are good enough to refer to my connection with the heating and ventilating work in the building.

As the reference contained therein is liable to some misinterpretation, I trust that I may be allowed to state the facts briefly.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The authors say, in reference to my designs, that "for various reasons his scheme was not carried out." This may be the case, in the main, with regard to the office parts of the building. But it certainly is not the case with regard to the heating and ventilating of the Council Chamber. Omissions from my specified particulars have been made, no doubt due to financial considerations. But the special installation for the Council Chamber as put in, with its distinctive characteristics, is substantially in accordance with my designs. This can easily be verified by making a comparison between my plans and specifications (which I understand were issued to the contractors when tenders were invited) and the installation as actually carried out. The distribution of the incoming air over the whole area of the Chamber; the alternative inlets for the air, and the individual control of these by occupants of the seats (alluded to by the authors in the article referred to); the system of air trunking under the floor of the Chamber with its centres of distribution securing uniformity of flow of air to the inlets; and the partial extraction of air at the floor of the Chamber—all of these form parts of my design. Some of these features were patented by me jointly with my then chief assistant, Mr. Walter Nobbs. The air washer-humidifier and automatic thermostatic control system incorporated in the installation also formed part of my scheme.—Yours faithfully,

H. E. MITCHELL, M.Inst.C.E.

[Letters from Mr. H. L. Curtis and Mr. P. L. Marks are unavoidably held over.—Ed.]

W. CURTIS GREEN [F.J., A.R.A.]

The congratulations of members of the Institute will be offered to Mr. W. Curtis Green on his having won the Institute Medal for the best street front erected in London in 1922, and again on his having more recently been elected an Associate of the Royal Academy.*

Mr. Curtis Green was born in 1875, the son of the late Frederic Green, M.A., Barrister-at-Law. He entered the office of Mr. John Belcher, R.A., and was trained at the Royal Academy School. For some years he was on the staff of the *Builder*, working for Mr. Heathcote Statham. He travelled a great deal for the *Builder* both in this country and in Italy, and visited Paris, Berlin and Vienna. He started practice about 1898, when he designed the power stations at Chiswick and Bristol for the London United Tramways and the Bristol Tramways respectively. He has designed many country houses, the best known of which is that at Forest Row, the result of a competition instituted by *Country Life*. He also designed the Adult School Hall at Croydon, the Church of the Good Shepherd at Frensham, the Institute at Painswick, the Cemetery Chapel and other buildings for the Chislehurst District Council at Chislehurst, and power stations for Messrs. Crompton. In 1912 he won in limited competition the Church of St. John the Evangelist at Carrington, which was not carried out owing to the war.

He was elected an Associate Member of Council in 1907, and two years later became a Fellow, and has served on the Council at intervals since then. For a time he was Hon. Sec. of the Board of Architectural Education, under the

* On the motion of the Hon. Secretary a hearty vote of congratulation was accorded to Mr. Curtis Green at the General Meeting on 30 April.

late Mr. Ernest Newton. For many years he was an active member of the A.A., and was President in 1913-14. When the R.I.B.A. and the A.A. paid a visit to Paris in June 1914, Mr. Green was enrolled an Officier d'Académie Française. In 1913 Messrs. Dunn and Watson invited him to become a partner in that firm. Mr. Watson's health was bad, and Mr. William Dunn contemplated retiring. In 1915 Mr. Curtis Green served for a time with the Red Cross in France, in 1916 Mr. Robert Watson died. Mr. Dunn stayed on while Mr. Green joined the R.G.A.

In conjunction with Mr. Dunn, Mr. Curtis Green designed the Hardwick Housing Estate at Chepstow, and the Stanmore Estate at Winchester, involving the lay-out of the roads and sewers of both estates, and the building of nearly 800 houses. During this partnership various works were carried out both in the City and in the country, including a number of power stations for the Marconi Company, the completion of the Scottish Provident Institution Buildings in Lombard Street, and that company's new branch in Pall Mall, a new bank at Hull for the Union of London and Smiths Bank (now the National Provincial and Union Bank of England, Ltd.), and also their bank in Regent Street, the elevation of the latter from the design of Sir Henry Tanner and Sons, in accordance with the Crown's building programme, and a new insurance office in Carey Street for the Clerical, Medical, and General Life Assurance Society.

Mr. Dunn, whose plans had been so much altered by the war, retired in 1919. During the last four years Mr. Green has designed Wolseley House, Piccadilly, recently awarded the Institute Medal for the best street front in 1922; No. 6, Duke Street, St. James's, for the Clerical, Medical, and General Life Assurance Society; the decoration of the Staircase at Lloyd's, Royal Exchange; new offices for the Tunnel Portland Cement Co. at Grays; offices and repair shops, Manor Street, Chelsea, for Wolseley Motors, Ltd.; additions to Westfield College; houses at Grays, Croydon, Radley and Turin.

Mr. Green is a member of the Faculty of the British School at Rome, and for the last two years he has been Chairman of the Board of Architectural Education.

"ARQUITECTURA ESPANOLA."

An interesting addition to architectural periodical literature has recently been added to the Institute Library in *Arquitectura Española*, which is published at Madrid and is printed in both Spanish and English, under the editorship of Sr. Pablo Gutiérrez y Moreno, a Madrid architect. The English version of the journal is undertaken by Professor Bernard Malley, of the Royal University College, San Lorenzo del Escorial. Its last issue, amply and well illustrated, contains numerous articles which should be of interest to English as well as Spanish readers. The Library is also indebted to the same donor for the presentation of nineteen volumes of *El Arte en España*, small monographs, each containing forty-eight photographic illustrations, which treat either of a city, such as Seville, or a cathedral, such as Burgos, or an artist, such as Goya, and form altogether a useful guide to students of Spanish art. Here again the Spanish text is accompanied by an English translation. The Institute is much indebted to Sr. Pablo Gutiérrez y Moreno for these gifts.

ARCHITECTURE AT THE ROYAL ACADEMY

Architecture at the Royal Academy

BY BASIL OLIVER [F.]

THE current KALENDAR of the R.I.B.A. contains the names of 4,614 architects on the active list, and this figure is exclusive of Retired and Honorary Fellows, Honorary Associates, Students and architects outside the Institute. Yet in the present Summer Exhibition of the Royal Academy of Arts British architecture is represented by 179 exhibits only. Of these, many are designs for stained glass, and in several cases the same architect has more than one design hung. It is important to bear these facts in mind in reviewing the exhibition.

It is true that the so-called "Mistress Art" has made an excellent impression in recent noteworthy exhibitions at Grosvenor House and in our own Galleries, but on entering the portals of Burlington House she has to conform to rigid rules, though these have been relaxed to some extent in recent years.

With the manifest growing interest in architecture, the time seems ripe for a Royal Academy Winter Exhibition devoted entirely to it. This might be restricted to photographs, models, and working drawings of buildings actually executed since the war. I am fully aware that this is no new suggestion, but it is only by constant reiteration of our hopes that they are ever likely to be realised.

Passing judgment on the artistic work of others is an unavoidable occupation, and even an impertinence, but it is, after all, purely a personal view. My chief aim in these few remarks is merely to stimulate sufficient interest to induce others to go and see for themselves and to form their own opinions. In any case, before this notice appears Fleet Street will have decided which is "the picture of the year" and why. If history repeats itself, architecture will not be so much as mentioned when the "loud speaker" gets to work on the subject of the Academy. Perhaps it is better so.

What strikes one most this year is the prevalence of ambitious seaside schemes, war cemeteries, and war memorials. Our little room with its representations has to compete with the actual works of art themselves in the other galleries, and this contrast will always remain a disadvantage to architects in such an exhibition. I found myself positively longing for a vigorous working half-inch detail, like Rickards used to exhibit, as an antidote to all these pretty views. Judging by the works hung, architectural exhibitors do not seem to avail themselves to any great extent of the concession to include "half-plate" photographs in connection with working drawings. There are actually only five in all, but there are over a dozen perspective drawings by Mr. Cyril A. Farey, six or seven by Mr. Philip Hepworth, and a large number of others by Messrs. L. H. Bucknell, H. A. Clist, W. M. Keesey, W. Walcot, Thos. S. Tait, H. F. Waring, Robert Lowry, A. Valette, H. St. J. Harrison, etc.

The place of honour, facing the entrance, is occupied by a fine Farey perspective of Sir Edwin Lutyens's New Offices for the Anglo-Persian Oil Co., Britannic House, Finsbury Circus, E.C. The same Academician's New Bank Premises, Piccadilly, adjoining St. James's Church, again afford proof of the delightful ability we have learned to expect from this architect.

The President and Mr. Maurice Webb are represented by a Memorial Reading Room, Malvern College (drawn by Mr. Raffles Davison); the Textile Trades War Memorial, the Russell School, Ballards, Addington, Surrey (drawn by Mr. Farey); and an appropriately Logganesque pen-and-ink Prospect of Wesley Hostel, to be erected in Jesus Lane, Cambridge (drawn by Mr. W. M. Keesey).

Sir Thomas G. Jackson and Professor E. S. Prior do not exhibit, but the other R.A. and A.R.A. architects have sent some interesting work. Mr. Giles Gilbert Scott shows an interior view of Liverpool Cathedral (his diploma work deposited on his election last year as an Academician). His only other drawing is a modest little pen-and-ink sketch of a Memorial Entrance Archway, New Buildings, Clare College, Cambridge. This charming design is full of distinction, and proves once more that Mr. Scott is not a master of Gothic only.

Sir Reginald Blomfield is one of the commendable few who make their own drawings, but he has only sent two this year, Nos. 1,217 and 1,229. Both illustrate by means of elevations and a perspective his design for the refacing of the Carlton Club in Portland stone. A small elevation of the existing front might have added to the interest of No. 1,217, but Sir Reginald's personality in the new work is so marked that it matters little if one cannot recall all the details of the old work. Perhaps these have perished too much to record with any exactitude? It is not clear which is the final choice between the central top block with its inscription on the elevation, and the carved Prince of Wales's feathers, as indicated on the perspective.

Of the A.R.A. architects Mr. Herbert Baker shows six drawings, Sir John Burnet four, and Sir Robert Lorimer only one, viz., a Proposed Naval War Memorial. Mr. W. Curtis Green, who was elected an Associate as recently as 27 April, within a few days of gaining the first annual medal for London street architecture, shows his versatility in Four Small Houses, represented by elevations and plans of the utmost simplicity both of drawing and colouring, but quite adequate where proportion and design are so pleasing. His other exhibits are Cottages at Winchester and a perspective by Mr. H. St. J. Harrison showing New Premises for Motor Co., Chelsea, S.W.

Mr. Herbert Baker's works include his South African Memorial, Delville Wood, France; and a Walcot perspective of his ingenious solution of the Bank of England enlargement problem. There are further examples of his Delhi buildings, sometimes rendered by Mr. Walcot and sometimes very similarly by Mr. Hepworth.

Mr. Thos. S. Tait is the presenter of Sir John Burnet's Proposed Indian War Memorial, Port Tewfik, Suez Canal, a fine monumental design for a perfect site; also of another perspective of the whole of the partly built Second Church of Christ Scientist, Palace Gardens Terrace, W.8; and a general view of the Jerusalem War Cemetery (1,327), amplified by a powerfully drawn, uncoloured perspective sketch (1,326) of a memorial Pylon for the same cemetery.

Our own President, Mr. Paul Waterhouse, is represented by the Convent of the Incarnation, Oxford, No.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

1,235, drawn by Mr. W. M. Keesey; and by a scholarly design, No. 1,334, for the Younger Hall, University of St. Andrews, N.B., shown by elevations with a water-colour perspective by Mr. L. H. Bucknell.

It is only possible within the limits of a single notice to mention a small proportion of the other works.

With one of the best of Mr. Hepworth's perspectives Mr. Clough Williams Ellis exhibits his First Church of Christ Scientist, Belfast, an entirely satisfying design in the South African Dutch manner. Mr. Thomas H. Lyon's New Church for Wembley Park—a coloured interior perspective by Mr. Keesey—is a real joy. It is to be hoped that he will be allowed to carry it out as depicted.

Mr. Robert Atkinson is again to the fore as a colourist in his Garden at Cherkley Court, Leatherhead, and in his gorgeous scheme for the interior decoration of St. Catherine's Church, North Hammersmith. Equally successful is Messrs. Leonard Stokes and Drysdale's treatment of the Convent Chapel at Clapham, S.W., with a sketch by the last named. It must be admitted that for decorative schemes there is no better way of conveying their designer's intentions. A fine drawing of the Threadneedle Street Elevation of the Westminster Bank by Messrs. Mewès and Davis occupies the middle space on the east wall. Beneath it is Mr. Arnold Mitchell's important Plaza Constitucion, Central Station, Buenos Aires. Mr. Macdonald Gill, turning aside from his fascinating Underground Railway maps for the time being, has produced a fresh and successful decoration in blue, red and gold for the Chancel of St. Bartholomew's Church, Chichester. Mr. Edward Maufe's Church and Institute, for the Royal Association in Aid of the Deaf and Dumb, Clapham Road, S.W., completely wipes out any lingering regrets one might cherish for the Oxford Street Church, now in course of demolition. Yet another good example of the use of colour is the very large interior view of a War Memorial Chapel, Mount St. Mary's College, Chesterfield, by Mr. Adrian Gilbert Scott.

Those with eyes to see should compare Mr. Charles F. A. Voysey's original intentions for a Scent Shop in Old Bond Street with the executed work, and for ever after look before they leap into hasty architectural criticisms. That master of Gothic, Mr. Walter Tapper, has excelled himself with his Proposed Church of St. Columba, Liverpool. What the interior would be like is shown by one of Mr. Farey's numerous perspectives. It is sincerely to be hoped that this church will be in course of construction by this time next year and that Mr. Tapper will let us see other parts of the building.

The lofty Font Cover destined for St. Mary's Church, Hadleigh, Suffolk, and designed by Mr. Charles Spooner, is absolutely right for that handsome church.

Mr. E. Guy Dawber is fully represented by perspectives of two country houses and by an elevational drawing of the Westminster Bank at Tunbridge Wells. His long and low Stowell Hill, Somerset—rendered by Mr. Hepworth—is more characteristic of Mr. Dawber's style than his much windowed Addington Park, Surrey. The Bank is a well-balanced design entirely suitable for its purpose and environment. Some banks are not.

Messrs. Adshead and Ramsey each illustrate their joint

work, the former with a slight colour sketch of the arched entrance to a Boys' Club at Hoxton, and the latter with a design for a well-proportioned house at Nunthorpe, Yorks.

Mr. H. Austen Hall's imposing block of New Buildings in Piccadilly, if executed, should in course of time put him in the running for the new medal.

There are this year some good designs for houses, both large and small, but they are too numerous to mention individually. Other exhibits which seem to call for attention are Messrs. Grayson, Barnish and A. L. Macmillan's Southport War Memorial; Mr. W. G. Newton's Memorial Garden, Marlborough College; Mr. A. Duncan Carse's Fresco Decoration for a New York Bathroom (of Pompeian character); Mr. C. Cowles-Voysey's house on the Cornish coast; Mr. Henry M. Fletcher's War Memorial Tablet for the Ante-chapel, St. John's College, Cambridge; a Rood-beam for Stow-on-the-Wold Church, Glos., by Messrs. Healing and Overbury (perspective by Mr. F. W. Morgan); Professor F. M. Simpson's Faculty of Medical Sciences Building, and Professor A. E. Richardson's Darwin Building, both for University College, Gower Street, W.C.

Mr. T. F. W. Grant's New Paper Mills should encourage manufacturers to employ architects, and to recognise the limitations of engineers.

Mr. Hugh T. Morgan is to be congratulated on his charming model (the only one this year) of a House at Forest Gate, where works of art are rarer than at Forest Row. The catalogue makes no mention of the formal sunk garden.

These notes would be incomplete without some reference to the designs for Stained Glass. I liked immensely Mr. Martin Travers's novel colour for the West Window of St. Stephen's Church, Portsmouth; Mr. Leonard Walker's Window for a Public Building—pure colour mosaic with a minimum of drawing and a maximum of jewel-like effect; and Nos. 1,268 and 1,332, by Mr. Joseph E. Nuttgens.

Though Mr. Henry Wilson's perfectly magnificent Memorial Altar Cross for Exeter Cathedral is not in the Architectural Room, but is in the Lecture Room with the sculpture, I make no apology for referring here, in conclusion, to so great a masterpiece by our foremost living architect-craftsman.

PROFESSOR HIND'S LECTURES ON ART.

Mr. Arthur M. Hind, the Slade Professor of Fine Art at Oxford, will give four lectures at the Steinway Hall on 5, 12, 19 and 26 June, at 5.30, on the following artists: Piero della Francesca and Botticelli, Leonardo da Vinci, Albrecht Dürer, and Michelangelo.

Applications for tickets of admission should be made to the Box Office, Steinway Hall, 115, Wigmore Street, W.

EXHIBITION OF MR. WILLIAM WALCOT'S DRAWINGS.

In view of the very great interest taken in this exhibition, arrangements have been made to keep it open until further notice. The general public are admitted free from 10 a.m. to 6 p.m. (Saturdays 10 a.m. to 1 p.m.).

REVISION OF THE CHARTER AND BY-LAWS

Revision of the Charter and By-laws

At the Special General Meeting on Monday, 30 April 1923, Mr. H. D. Searles-Wood, Vice-President, in the chair, the proposals of the Council for the revision of the Charter and By-laws were submitted for the approval of the General Body. These proposals were published in the JOURNAL for 14 April, pages 356-358.

DISCUSSION.

The Chairman called upon Mr. Sydney Perks, Chairman of the Charter and By-laws Committee, to explain the proposals and move their adoption.

Mr. SYDNEY PERKS [F.] : There is a number of amendments suggested in the Charter and By-laws, and the Council hope that those items they are bringing forward are non-contentious, the idea being to deal with them, so that the solicitors can have a lot of material for the drafting of amendments. Later on we shall have to have another meeting to consider them.

I will start with No. 1, and, with your permission, I will take it in two parts, dealing first with the paragraph ending with the words "binding on the Institute." It was thought that if things have to be carried by a two-thirds majority, some important matter might be lost by only one or two votes, and the Council should then have the power to take a referendum of the whole of the Institute to ask their opinion on such an important matter.

The paragraph was put to the vote and carried.

Mr. PERKS : Now the second part of No. 1, "Associates to have the same voting powers as Fellows, both as regards Charter and By-law matters."

The paragraph was put to the vote and carried.

Mr. PERKS : Now No. 2, "The Institute to have power to hold, etc." At present we have not power to hold property exceeding the sum of £2,000 per annum.

The paragraph was put to the vote and carried.

Mr. PERKS : The next point is, "Ladies are at present eligible, etc." The paragraph was put to the vote and carried.

Mr. PERKS : No. 4, "Provision to be made for the new class, etc." This was passed unanimously at one of our previous meetings.

Mr. H. A. WELCH [A.] : There seems to be a number of subdivisions of membership at present, especially with regard to the non-professional class; may we be enlightened as to this fresh addition, the non-professional class?

Mr. PERKS : The idea is to get influential people. Members of Parliament, members of the County Council, and people generally, interested in the Institute. They would then be able to come here, and we think it would be a very good thing for the Institute. Something of this sort existed a good many years ago. These people could come here, and use the Library. We want desirable people to join that subscribers' list. There was a debate on this, and it was passed unanimously by a general meeting in 1921.

Mr. E. H. WOODCOCK [A.] : I hope No. 4 will not be passed; I do not think we should include anyone except ordinary Members and Associates, that we should not have people who are not professional architects.

The CHAIRMAN : They will not be included in the corporate membership: they will be outside the Institute.

Mr. WOODCOCK : They are bound, at some time in the future, to be discontented with the terms on which they have been elected, and we shall probably be in the position of having to try and do something to ameliorate their position. That state of affairs is not unknown to us now with a certain class, and I hope we shall keep well out of trouble in regard to this.

Mr. WELCH : I am as sincerely desirous as anybody to have attached to us a certain number of influential people outside

who are interested in architecture and who are likely to do good to this Institute and to architecture generally. And we have made provision for those influential people within our By-laws. I fail to see anyone who is worthy of our Institute, and who is debarred or finds it difficult to come in under our present scheme of membership. I am strongly opposed to it. The paragraph was put to the vote and carried by 35 votes to 32.

Mr. PERKS : No. 5, "The definition of a Fellow (Charter, 1887, clause 3) to be enlarged, etc." With your permission, I will add a few words to what is printed. "(a) Associates in a position of responsibility for the design of architectural work, but not being in private practice, or who by their professional attainments are considered eligible." I have been in correspondence with Mr. McLachlan, and I think those few words added will please him and others. That enlarges very much the power of Associates to become Fellows.

The paragraph was put to the vote and carried.

Mr. PERKS : The next definition is "(b) Licentiates over sixty years of age, etc." That is to allow certain Licentiates who are getting on in life and are in big positions, and yet are too old to go in for examinations, to become Fellows. The Council have thought the matter over carefully, and they have put the age as over sixty, subject to the men concerned satisfying the Council.

Mr. W. H. ANSELL [F.] : There is an important point involved in this, and it comes up also in a later resolution, as to whether the functions of the Fellowship Drawings Committee are to be more or less automatic, or whether they are to be a discriminating body. Who is to judge whether a Licentiate is fit to become a Fellow of this Institute? Is he to submit drawings?

The CHAIRMAN : Yes, as in the ordinary way; they have to submit drawings and fully satisfy the Council.

The paragraph was put to the vote and carried.

Mr. PERKS : 6, "A new non-corporate class of students, etc."

The paragraph was put to the vote and carried.

Mr. PERKS : 7 (a), "Any Art or Craft Society, etc." The idea of this is to bring us into closer touch with the various arts and crafts in relation to architecture.

The paragraph was put to the vote and carried.

Mr. PERKS : 7, "Power to be given to admit as Honorary Associates, etc." I think there has been some doubt in the past with reference to this class.

A MEMBER : May we substitute the word "persons" for "people"?

Mr. PERKS : I accept that.

The CHAIRMAN : I put it to you as amended.

The paragraph was put to the vote and carried.

Mr. PERKS : 8, "With regard to Clause 29, etc."

The paragraph was put to the vote and carried.

Mr. PERKS : 9, "With regard to Clause 35 and elsewhere, the solicitors to decide if any alteration be necessary with regard to Ireland."

The paragraph was put to the vote and carried.

Mr. PERKS : With regard to Clause 2, Charter 1909, "The word 'eminent' to be inserted before the word 'architect' in line 11." That deals with the power of the Council to elect Fellows.

Mr. W. WOODWARD [F.] : Will Mr. Perks tell us the real meaning of the word "eminent"?

Mr. PERKS : We will ask the solicitors to define it.

The paragraph was put to the vote and carried.

Mr. PERKS : The following suggestions are made with regard to By-laws: "One form of spelling should be adopted."

The paragraph was put to the vote and carried.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Mr. PERKS : By-law No. 3, "We are of opinion that Associates, etc." That will not apply to anybody in this room. It is for Associates elected after the date of the Revised By-laws. We must do something with regard to money : we need a larger income ; and if people will not proceed from the Associate class to the Fellowship, we must increase their subscriptions.

Mr. ANSELL : May I object that the trial of the Finance Committee is too much over this resolution ? In my opinion, it is not fair to the Associates who are to be elected after this date named that they should be compelled, whether they wish to do so or not, to do certain things in this way. It does not necessarily follow that the result of this resolution being passed will be to the good of the Institute. It takes away much liberty from the Associate, therefore I object to it for that reason, and also because anything which tends towards an automatic addition to the Fellows is, in my opinion, bad. It should be deemed an honour to be a Fellow of the Institute, and a man should not get it as a matter of course. The fact remains that it is at present a matter of election, and that the candidate is supposed to earn his position. By this provision he is compelled to stand for the Fellowship whether he feels he is ready for it or not. And possibly he may be rejected. That is unfair to the Associate, and it should be left to the Associate, so that he can select the time at which he will make application for the Fellowship.

Mr. W. G. HUNT [F.] : I would like to correct one statement the last speaker made. The Associate will not be obliged to proceed ; as an alternative he can pay the extra subscription.

Mr. ANSELL : That is the Finance Committee again.

Mr. A. J. C. EWEN [F.] : I would like to support the first speaker on that. The Fellowship should be an honour, and I take it that most Associates so regard it. When they are qualified to become Fellows, they naturally seek that honour. If a man himself does not feel qualified, it may be for two reasons, one of which is financial. He probably has not made good, as he hoped in his early years, and his practice is a small one ; he is a comparatively struggling man.

Major H. C. CORLETT [F.] : The main point, to my thinking, is that the Fellowship should become an honour to men who are Associates. The other point we should consider—I am speaking as a Fellow on behalf of Associates, which is something I should not undertake, perhaps—is that I think the Associates should be at liberty to say whether they will go forward to the Fellowship, or not. The Associate may object to paying the increased subscription. What right has the Institute to compel him, because he has reached a certain age ? He has come into the Institute because he is eligible as an Associate ; he agrees to pay a certain subscription, and we are going to be rash enough to compel this man to pay an additional subscription. I think this should be ruled out entirely.

Mr. T. L. DALE [F.] : If you must have some more money, could not you ask it after a person has reached a certain age, without suggesting he should become a Fellow ?

Mr. F. WOODWARD [A.] : Would it meet the point of our friend if we were to substitute the word "may" for the word "should" in the second line ?

The CHAIRMAN : He *may* now. I think Mr. Dale's suggestion is the best ; knock out the Fellowship, and say "after a certain number of years the subscription may be increased."

Mr. PERKS : I am willing to accept that.

Major CORLETT : We cannot apply that to Associates and not Fellows. If we are going to make Associates pay more, we should ask more of Fellows too.

Mr. ARTHUR KEEN [F.] (Hon. Secretary) : It is not merely a question of a man reaching the age of fifty ; he has got to be eligible for the Fellowship, which means he must have been in practice seven years. We now take applicants for the Associate class and test them ; we test them at the time we take them as Associates, and I think it is only following the proper,

normal course, that a man should be a Fellow when he has been seven years in practice.

Mr. VAL MYER [A.] : On the question of finance, we are putting a burden on the man who has not made good by fifty years of age, and he should not be asked to find increased money. It is the man who has been successful who should be charged the increased subscription. It brings the Fellowship into great disrepute if it is thrown upon us in this way.

A MEMBER : Would it be possible that by making a man become a Fellow or pay by compulsion an increased subscription, it might work against the finances of the Institute ? If a man on reaching fifty is suddenly called on to pay an extra two guineas a year, might he not, instead, send in his resignation ? In that way the Institute would lose his three guineas, instead of receiving an extra two guineas.

Mr. P. M. FRASER [F.] : There is a weakness in this clause. The Associate has his means of redress if at the age of fifty he does not wish to become a Fellow ; he can submit so wretched a set of drawings that he is turned down.

Mr. MAURICE WEBB [F.] : As this is only a matter of opinion, will not the Committee be willing to withdraw that paragraph altogether ? They only say, "We are of opinion," and as there is a strong feeling in the meeting against it, I suggest it be withdrawn.

Mr. PERKS : I am willing if there is a feeling against it ; we want this to be unanimous.

The CHAIRMAN : We will take a vote on the question of withdrawing it.

The paragraph was put to the vote and lost.

Mr. PERKS : With regard to By-law No. 7, "We are of opinion that the Licentiate class should not be re-opened."

Mr. KEEN : This is a matter on which, though I am a member of the Committee, I was not in agreement with the others, but I did not offer any strenuous opposition to it. I do not see why it is necessary to have it ; there is no proposal before us to re-open the class of Licentiates. There may at some time be a reason, but there is none now, and I do not see the necessity of passing a resolution on the matter at all ; therefore I suggest that this be dropped, in the same way as the last one.

Mr. PERKS : It has been suggested that the class of Licentiates should be re-opened. Many suggestions came to the Committee. The Committee considered them, and thought the class of Licentiates should not be re-opened, and we shall be glad to have your opinion on it.

The paragraph was put to the vote and carried.

Mr. WELCH : To glean a little information, I ask what is going to happen to these suggestions after we have voted on them ?

The CHAIRMAN : They are expressions of opinion, and they will be sent to the solicitors and drafted in the form of By-laws. They will then require another meeting, and the proper number of votes to pass them.

Mr. PERKS : By-law 12. This refers to the election of Fellows by the Council. At present it reads :

"The name of any candidate whom the Council are empowered under the Charter to elect either as a Fellow or Licentiate, together with the names of his proposers, shall be sent to every member of the Council, and if he be practising out of London to the Council of any Allied Society of the province in which his office is situated, not less than fourteen days before the meeting of the Institute Council at which his name is to be submitted for election.

"Every such candidate for the Fellowship receiving the unanimous vote of those present and voting at a meeting of the Council, not less than twelve being present and voting, shall be declared duly elected, subject to By-law No. 13.

"Every such candidate for the Licentiateship receiving an affirmative vote of two-thirds of those present and voting, and in any case of not less than twelve, shall be declared elected,

REVISION OF THE CHARTER AND BY-LAWS

subject to By-law No. 13. Such voting in both cases shall be by show of hands."

We propose that this should be amended so as to provide for the election of such candidates by a four-fifths majority of those present and voting. It seems unfair, if you have a Council of 42, that one man can thwart the strong opinion of 41 men, and in that way turn down some eminent architect. We therefore propose four-fifths, which is a very large majority.

The paragraph was put to the vote and carried.

Mr. PERKS : The next paragraph is in regard to offences by any member or Licentiate. "We are of opinion, etc."

The paragraph was put to the vote and carried.

Mr. PERKS : The next is in regard to By-law 24. At present it reads: "Any charge under the preceding By-law 23 preferred against a member or Licentiate must be in writing, duly signed, and forwarded to the Secretary, who shall lay it before the Council at their next meeting." There has been considerable trouble in getting that statement duly signed. Therefore we recommend the following: "We are of opinion that this should be altered so that the conditions under which a charge can be made should be as wide as possible, the Council should have power to initiate or investigate a charge without previous receipt of a written statement from a Member, the time-limit for suspension should be omitted, and that the question of the publication of a suspension should be referred to solicitors with a request that they should endeavour to find words which would enable the Council to make such publication without danger of an action for libel."

Mr. WELCH : I feel that before the Council should be expected, as a body looking after an Institute of this magnitude, to make a charge, or investigate or initiate a charge against any member, it should have something more sound as a basis than mere tittle-tattle. If the member has done something so grievous as to warrant the Council's investigation for the purpose of possible punishment, surely that can be done by some member in writing, who knows of the grievous offence which has been committed. I think this is giving the Council not only a degree of responsibility which it has no right to carry, but it is likely to throw upon them a tremendous amount of work of a most unpleasant nature. I suggest this should be withdrawn.

Major CORLETTTE : It is difficult for the Council to decide whether a man is indiscreet or not, because it is not as if we had a code of what is right and what is wrong. Unless we have such a code, how can we expect the unfortunate man to go right according to the view of the Council?

Mr. PERKS : This is proposed in view of the great trouble many Councils have had in dealing with charges; they cannot move in them themselves unless somebody writes and brings a charge. And there is a difficulty in getting members to do that. There has been much trouble due to the wording of this By-law. It is now intended that the solicitors shall frame something, giving to the Council the power they ought to have. If, as Mr. Welch says, the Council would have to take on work of an unpleasant nature, it cannot be helped, it is their duty. But the Council can do nothing at present unless a Member or Licentiate writes: without that, their hands are tied.

Mr. WOODCOCK : The Council's suggestion is, I think, reasonable. It is obvious that practically no one will write or say anything which will result in a charge against a colleague or fellow-member, and if the Council can be empowered or got to investigate the matter from their own point of view, members individually are very much relieved.

The paragraph was put to the vote and carried.

Mr. PERKS : By-law No. 29, "We are of opinion that there should be one Hon. Secretary, etc."

The paragraph was put to the vote and carried.

Mr. PERKS : By-law No. 32. "We are of opinion a list of attendances, etc." At present this is published in the JOURNAL, and perhaps many men do not see it; sometimes it is published after they have received their voting paper.

The paragraph was put to the vote and carried.

Mr. PERKS : "We suggest that By-law 33, etc." That is the rule for the Standing Committees. At present there is a rule of the Council that certain men have to go off, and it sometimes happens that a man has to go off the Council when he has only attended one year; it has happened this year. And it is a very hard rule. The rule I read has worked very well with the Standing Committees, that a man can remain on six years without going off and drawing lots in this automatic way.

Mr. WELCH : Is there any reason why there should be a limit at all? If any member of our profession is considered suitable to be on the Council for six years, surely he should have the right to remain on for the seventh.

Mr. PERKS : Personally, I agree with Mr. Welch, but some years ago members were on the Council twenty or thirty years, or more, and the general body did not like it, and so these Rules were passed requiring men to go off the Council. At that time very strong views were expressed by the general body that men should retire periodically. What we propose now is a compromise, that a man may stay on for six years, as in the case of the Standing Committees.

Mr. WOODWARD [F.] : When I was a very young Associate, the opinion I and others then formed with regard to the then Council was that they had become fossilised.

Mr. WELCH : My view still stands. If there is objection to such a state of affairs existing, the general body has the power to alter it in its own hands. If it does not want a particular member to remain on more than six years it does not vote for him. You might just as well say a man shall not sit in the House of Commons for more than six years. If you don't want him to, you simply do not return him.

Mr. PERKS : I suggest that Mr. Welch proposes an amendment that there shall be no regulation compelling a member to go off the Council after a certain number of years.

Mr. WELCH : I shall be pleased to propose that.

Mr. MAX CLARK [F.] : I had a great deal to do with men going off Standing Committees at the end of six years. It was desirable for the younger men to have a chance—I was one of the younger men then—but, at the same time, I think there might be some useful men who might be on for more than six years. Still, I do not like the idea of going back to the old style when men stayed on for twenty years in succession.

Mr. ANSELL : There is a point which touches this proposed alteration. I do not altogether agree with Mr. Welch's proposition; but in these modern days, when Councils are produced *en masse*, six years might see the whole of the Council thrown out, with not a single man of the old Council remaining.

The amendment was put to the vote and lost. The original paragraph was then put to the vote and carried.

Mr. PERKS : The next is in regard to By-law 35: "We suggest that the extraordinary meeting must be called within seven days." It is merely a matter of Council procedure.

The paragraph was put to the vote and carried.

Mr. PERKS : The next is By-law 37. It is merely formal. It says "any notice," etc., and we want to add "or other document."

The paragraph was put to the vote and carried.

Mr. PERKS : By-law No. 38. "The President has power to issue any notice he may think fit, and at present he must report his action 'at the next meeting' of the Council: that might be impossible, and we suggest the omission of the words 'at the next meeting,' and the clause would end 'provided that he report his action to the Council.'"

The paragraph was put to the vote and carried.

Mr. PERKS : The next is with regard to Standing Committees. We suggest it shall read: "There shall be Standing Committees for the promotion of . . . profession of architecture, and they shall be appointed annually." It is only a verbal alteration.

The paragraph was put to the vote and carried.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Mr. PERKS : By-law No. 51. The third line reads : "branches of architecture with which they are respectively entrusted," and we suggest it should read : "branches of architecture for which they are respectively appointed." There was a good deal of trouble some years ago as to the word "entrusted," and I think the word "appointed" would clear it up.

The paragraph was put to the vote and carried.

Mr. PERKS : By-law No. 54. "We are of opinion that it should be made clear, etc." That might be necessary in the Recess. It is very much safeguarded in that form.

The paragraph was put to the vote and carried.

Mr. PERKS : The next seems a little complicated, but it is not. We suggest adding to the clause words to this effect : "The Council may at any time have power to call a Special Business Meeting, etc." With regard to the quorum, it must be "Members," no distinction between Fellows and Associates. We have got By-law 64, which refers to calling a General Meeting. We want to make it clear that you have power to call an Extraordinary Business Meeting under this By-law.

Then "In line 5 it is stated that 'any question relating to the property or the management of the Royal Institute or to any professional question may be discussed'; this should be enlarged to include any questions as to Charter or By-laws, and every domestic matter concerning the Institute." There has been trouble sometimes as to under what heading the meeting was called, and the intention is to make as wide as possible the subjects for which you can call a general business meeting. I will move down to there, if I may, Sir.

The paragraph was put to the vote and carried.

Mr. PERKS : At the end of Clause 60 we propose there shall be added, "Subject to the discretion of the Chairman, every speech delivered at any business meeting shall be published in the JOURNAL at the earliest possible date after the meeting." Some years ago it happened that there might be no report of speeches in the JOURNAL, only a reference in the minutes.

Mr. W. WOODWARD [F.] : I take it that does not mean verbatim?

The CHAIRMAN : No, they would have to be edited.

The paragraph was put to the vote and carried.

Mr. PERKS : By-law No. 64. "Insert 'any' for 'a' in the second line, etc." That means that you have power, if you wish to discuss a delicate matter, to call a meeting which shall be private, and if you do not wish it to be private, it can be called under another section. It is to give the Institute the option.

The paragraph was put to the vote and carried.

Mr. PERKS : "Under By-law No. 66, the quorum of forty Fellows' should read 'forty Members,' because Associates will have the same power; formerly they had not the right to vote at some meetings."

The paragraph was put to the vote and carried.

Mr. PERKS : "If, in the opinion of the Chairman, it is desirable to divide on any question, provision to be made for the appointment of tellers and for divisions to be taken."

The paragraph was put to the vote and carried.

Mr. PERKS : "By-law 77 refers to Allied Societies, and it is suggested we should omit the words 'in the United Kingdom, in India, or in any Dominion, Colony or Dependency of the United Kingdom,' and after the words 'consisting in whole or in part of professional members,' add the words 'being British subjects.'" You might want to get an Allied Society in France, or in America, but you have not the power. All the members must be British subjects.

Major CORLETTÉ : Before you put that to the meeting, I should like to say I am glad to see this endeavour to enlarge the scope of the Institute so that as many Allied Societies as possible should be drawn in, but, as we are nearing the end of the discussion, I suggest that this report cannot be considered complete, because from the preamble here I gather that the recom-

mendations made by the Allied Societies have not yet been considered, and I take it that any suggestion they may make will be fully considered, notwithstanding the general opinion expressed to-night.

Mr. PERKS : I hope we have not done anything to-night which will in any way affect the Allied Societies. At present it says : "Any Architectural Society in the United Kingdom, . . . Alliance"; we want to enlarge that to include France and anywhere else. You could not at present have an Allied Society of British people in France.

Major CORLETTÉ : I realise that the present clause we are considering may not affect Allied Societies: I am merely taking the opportunity to suggest it would have been much more satisfactory if the opinion of the Allied Societies had been considered in preparing this Report. It is incomplete without an expression of opinion incorporated with it as to the Allied Societies.

Mr. PERKS : It was circulated. There are nine representatives of Allied Societies on the Council, and they made their suggestions.

The paragraph was put to the vote and carried.

Mr. PERKS : With regard to the forms of Declaration, it should be stated that each Fellow, Associate, Hon. Associate or Licentiate should agree to accept the Council's decision on any matter and take no legal action against them.

Mr. W. WOODWARD [F.] : I, with many others present, have been at similar discussions on like matters, but I think you will agree with me that what might have been a contentious, unfriendly discussion has proved to be a most friendly, good-natured one, due, to a very large extent, to the very clear explanatory manner in which Mr. Perks has spoken in reference to these clauses. And let me add this: thanks are also due to the Chairman for the very excellent way in which he has conducted the proceedings from the chair, and I hope that in a few years, when we further discuss these By-laws, there will be a similar friendly spirit shown.

The CHAIRMAN : Thank you. But we must put this first gentlemen. I put the last clause.

The paragraph was put to the vote and carried.

ACADEMIC DRESS FOR MEMBERS AND LICENTIATES.

At the conclusion of the discussion of the proposals for the revision of the Charter and By-laws, the proposals for the adoption of an academic dress were considered. These proposals were published in an illustrated supplement issued with the JOURNAL for 14 April.

The CHAIRMAN : We now come to the next item in the agenda: To consider the proposals for the adoption of an academic dress for Members and Licentiates of the R.I.B.A. First, the Secretary will read some letters.

The SECRETARY read the following letters :—

DEAR SIR,—I am obliged for the particulars contained in the last number of the JOURNAL.

The proposed dress would certainly be very picturesque, but I fail to see the slightest necessity for it. The occasions on which it would be worn would probably not exceed one in ten years, and, personally, I strongly object to being obliged to pay £6 6s. for a dress which would probably be moth-eaten when I wanted to use it. I also think that under existing circumstances Associates and Licentiates would not have £5 5s. to spare for the same purpose.

For these reasons, I regret to have to record my distinct objection to the proposal that an academic dress should be adopted.—Yours faithfully,

R. LANGTON COLE [F.]

DEAR SIR,—In case we are unable to attend the meeting on the 30th instant, will you allow us to express our opinion regarding the academic dress proposed for Fellows, Associates and Licentiates of the Institute?

ACADEMIC DRESS FOR MEMBERS AND LICENTIATES

We think that the designs are excellent in themselves, but for the proposed purpose we do not think they are suitable.

If a dress is deemed necessary, we suggest that very simple and plain gowns with distinctive colours, "deep red" for Fellows, "deep blue" for Associates, and "black" for Licentiates.

In place of the biretta, a plain square velvet top, smaller than the usual "mortar-board," and plain-shaped velvet headpiece.

We hope that the above suggestions may be of use, and remain, yours faithfully,

WILLIAM AND EDWARD HUNT [FF].

DEAR SIR,—With regard to this matter, as to which I am entirely in accord with the report of the Sub-Committee, will you kindly let me know on what occasions it is proposed that members of the Royal Institute should wear this cap and gown? For instance, I am an Alderman of this city [Exeter]. I take it that at official receptions I should wear this? Yours faithfully,

J. ARCHIBALD LUCAS [F].

Mr. W. E. RILEY [F.] : Mr. Chairman and Gentlemen, the first thing which struck me about the reading of the letters was that there was no whiffling, husky cachinnation at the back of them, but a good roar of laughter. But I do treat this matter with something like seriousness. We have seen that there has been this evening a strong tendency to make this Institute a thoroughly democratic and representative institution. And when you established a code of examination by which you excluded from membership everyone who had not a sound general education and a good professional education as well, you entailed the necessity, in my opinion, of showing that they had attained their position by some such method as is employed in other academical institutions. The Institute has a Royal Charter. It would be almost useless to tell you of some of the societies that have an academic dress, but you might like to know of a few, as possibly you may not be acquainted with them. The Royal College of Art has one, so has the Royal College of Science and Technology, the Royal College of Surgeons, the Royal College of Organists, and several others I could name.

The necessity for an academic dress for our members has been in my mind for a good many years, and I thought this necessity was particularly pronounced during the Wren celebrations. There was a very spontaneous opinion expressed about this in an influential and very dignified paper, the *Church Times*, and I would like to read it. It referred to the service in St. Paul's Cathedral: "No two congregations in St. Paul's Cathedral on these national occasions are alike. On the contrary, there were distinguished men in plenty, but their distinction was not advertised by ceremonial dress." I submit that is a very spontaneous and surprising note from the *Church Times* in vindication of what I am now asking you to consider. If you want to see another cause for some such thing, I advise you to go into the adjoining room and look at some of the garbs the Presidents have been painted in.

The proposed academical costume which the Council have been good enough to authorise me to circulate has, at any rate, a dignified appearance. Some of you may not like it, but it has been designed by a celebrated exponent of that class of costume, Mr. Gray, and I think it is a very fine and dignified costume. Outside there has been an effort to treat this proposal with levity, but I submit it is not a subject for levity at all; it is of real import to you, so that if at any time you are going to an academical function, and certainly if you are going to such a function as we were interested in recently, you will have some sort of appropriate and distinctive dress which you can put on. I have been asked to say when you may put it on. You will put it on when you feel that the dignity of your profession demands it. I formally ask you to consider the adoption of an academical dress. I move this resolution: "That we

adopt an academical dress for use on academical and functional occasions of the Royal Institute of British Architects, and take as the basis the three designs submitted in the supplement to the JOURNAL."

Mr. W. SCOTT-MONCRIEFF [F.] : I beg to second that. When it was first suggested the idea appealed to me very strongly, and I have given such support as would enable it to be carried through. Mr. Riley has mentioned most of the points I thought of referring to, but there is one which he did not make quite clear. It is, that if this proposal for wearing an academic dress is passed, there is no Member of the Institute, either Fellow or Associate, who is under any compulsion whatever to have it. It is simply felt that there are occasions when Members should wear such a dress and could do so with very great advantage.

Mr. WOODCOCK : Supposing this principle is adopted—I do not say whether it is going to be, or not—will it be open to us to consider the details?

The CHAIRMAN : Certainly: it is only *an* academic dress which is proposed.

Mr. J. B. CHUBB [F.] : I am very glad that this proposal has been brought forward at last. It has been in my mind for many years, and it was brought home to me more particularly some years ago at a public reception by the University of London, when nearly everybody attending there was distinguished by some sort of costume. I, for one, felt that I was nobody at all, although at that time too I had the pride of belonging to this Institute. Members of the College of Surgeons were there in the black gown with red facings, Members of the College of Physicians with the black gown and purple facings, and, as I say, everybody had a costume of sorts. This Institute, I need hardly tell you, is an Institute of such eminence that something of the kind which is now proposed is absolutely essential. The public are beginning to learn what an architect is, and are beginning to find out, for the first time, what the Royal Institute is, and I think it is high time we came forward and showed ourselves as Members of this great Institute. There is far too much self-effacement in this country, and we have suffered very much from it for many years. They have managed things better abroad; in France they have known how to represent their public bodies. I hope this matter will not be turned down without receiving a good deal of further consideration. I have not pledged myself to adoption of these designs: I think they are interesting, but a little too monastic and mediæval. If we could adopt a costume of a simpler design, more like that of the College of Surgeons, or of the College of Physicians, we should attain all that we need, and we should show ourselves before the public as members of a great and noble institution.

Mr. DALE : Will members be given an opportunity of seeing models of the garments themselves?

The CHAIRMAN : The remarks Mr. Riley made are about an academic dress, not necessarily this design.

Mr. SCOTT-MONCRIEFF : I was a member of the Committee which went into this. The basis of it is the University gown of the old type. The present type of gown, which is worn by undergraduates of Oxford, Cambridge, etc., is a disfigurement of the original type, which had long sleeves, and we have taken that as the basis. It is made of the same stuff as the ordinary graduate's gown, the old type, with long sleeves which buttoned round the wrist, and the cape was Mr. Gray's suggestion. The whole idea was to keep it as plain and as simple as possible. With regard to the biretta, it was felt by the three of us, on the recommendation of Mr. Gray, who is a great authority on these costumes, that it was the best one to suit that particular gown. And one of the things we had in mind all the time was that it should be of such a nature that you could put it on without having to take off anything. When it was on it would hide all your ordinary clothes, and there would be no exposure at the neck.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Major CORLETTE : There is too much hilarity ; we should be more serious if this is to be adopted by the Institute. I am in favour of doing anything which will increase the importance of the profession in the eyes of the public, and we hope that the names of the designers of our buildings will be noticed more. If we are keen about that for ourselves, we should recognise the importance of the sister art, and I suggest that, if this meeting to-night adopts this proposal, the costumer or milliner who designed it shall be named in the JOURNAL, with her portrait.

Mr. EWEN : There is no one in this room who has not, again and again, read descriptions of the opening of most important buildings, mentioning the name of the Lord Mayor, or other dignitary, but no mention of the name of the architect, because the architect, as a rule, is the least distinguished person in the whole proceedings at the opening of the building. Yet it is on account of his work that the function takes place at all. I am not in favour of wearing a pelisse, though a biretta might do very well. This idea gives the architect an opportunity to come into the picture, whereas at present he too often is not in the picture.

Mr. DALE : I think a specimen of the costume should be submitted before adoption.

Mr. MAURICE WEBB : I do not want to make a laughing-stock of the subject, but it is very important to decide this. At present everybody is laughing at it, and Mr. Scott-Moncrieff reminded me of the Scotch minister who was discussing a similar question in connection with his church, and he said : "I will wear no clothes to distinguish myself from my fellow-Christians," and that is the attitude this Institute should adopt. We do not want an academic dress ; but if we are going to have one, why discard the old-fashioned mortar-board ? Why go back to the fifteenth or sixteenth century for the biretta ? When I come to these meetings I want to meet Mr. Perks with a flaming sword in either hand, not clothed in a biretta and a cope. I hope we shall give it further consideration before we pass it.

Mr. SCOTT-MONCRIEFF : The last speaker already has an academic dress ; he is M.A., and therefore entitled to wear one. And much of the laughter and opposition to-night has come from those who already have one.

Mr. CART DE LAFONTAINE [A.] : A speaker mentioned that they have an academic dress in France ; but the French architects have no such dress ; they stand on their own merits, and do not require an academic dress.

Mr. L. A. CULLIFORD [A.] : I think this meeting should not decide the question for the whole country ; I think we ought to get a postal vote from the members of the Institute.

A MEMBER : I think those who have shown an interest in the matter by coming here to-night, knowing this subject was to be discussed, are the right people to decide it.

Mr. WELCH : We have many members in the North of England and in Scotland who would find it costly and inconvenient to come here and spend the night in town to discuss these matters ; therefore, in fairness, we should give them the opportunity of voicing their wishes. There are many who would like academic dress ; there are others who would dislike wearing it. We are not sufficient in numbers here, and we do not here command the whole intelligence of the Institute, and we should give the opportunity to others to express their opinions.

Mr. E. FIANDER ETCHELLS [Hon. A.] : Is it necessary to consult members in the North Country ? Many of them are here to-night. The wearing of academic dress is optional, and we should give members the opportunity of doing so. I think a vote might well be taken to-night.

A MEMBER : I think this matter has been well discussed outside ; and if there are individuals who object, they could have written to express their opinions, just as did the three members whose letters the Secretary read out to us. I think this meeting is sufficiently representative to decide.

The CHAIRMAN : I will put the amendment of Mr. Welch that a postal vote on the question be taken.

The amendment was put to the vote and lost.

The CHAIRMAN : I now put the original proposal.

Mr. MAURICE WEBB : Does this require a confirmatory meeting ?

The CHAIRMAN : We shall have to go on to the details : but the principle will be settled to-night.

The resolution was put to the vote and carried.

The CHAIRMAN : Do you wish to take the details to-night ?

Mr. RILEY : I do not think I am in a position to do that. The general meeting having expressed the opinion that an academic dress should be adopted, I am prepared to accept amendments on the question of the fitness of the designs. My opinion is that it is a very artistic dress. But whether it should take that absolute form I do not know. I shall be glad to receive amendments. But, in order to test the feeling, I propose "That the academical dress which has been circulated be the dress adopted by the Institute."

Mr. WOODCOCK : I appreciate the Council's ideas for keeping to tradition, and I admit that the sketches published do show a great regard for tradition. I think that at the present day it would be an advantage if we regarded the present conventionalities a little more. In detail I would suggest some other alterations. I commence with the Licentiate's robes, as they are the first given. I suggest that the hood, in all cases, should not be as traditional as shown, but should be further down the back, not so close up to the neck, and that it should be detachable in the usual way. I am against any suggestion as to the "split-herring" shape which the Oxford hood so often assumes, but it should not be so traditional as shown in the sketches. I suggest that the Licentiate's hood should be lined with black silk, edged with dark orange, not with the old gold suggested by the Committee. Also that the thin edge should extend down the gown. With regard to that for the Associates, it should be similar, except that the hood is lined with dark orange. With regard to the Fellow's costume, it should be the same as the Associate's *plus* the cape. And the circular makes no reference to what the hood is made of ; is it alpaca, or stuff, or silk ?

Mr. ANSELL : These details are rather a matter for a skilled and able Committee than for a general meeting of this kind. If members who have suggestions would send them to the Committee, they would be considered, and probably a better result would be obtained. I suggest this, though I voted against the dress.

The CHAIRMAN : I support the idea of long sleeves, because for fifty years I have worn a cassock, sometimes without sleeves, sometimes with sleeves. It is a comfort to have a cassock with sleeves, because then it does not matter what is the colour of the coat you have on ; if you have a cassock with short sleeves, you will scarcely wear a light coat underneath it.

Mr. DALE : I think samples should be submitted before we proceed further.

Mr. WELCH : I think we shall be wise to adopt the suggestion of Mr. Ansell, to refer it to a Committee, and that members who have views should send them to that Committee. It would be much more satisfactory.

Mr. Ansell's proposal was carried.

ALLIED SOCIETIES

WHITGIFT HOSPITAL, CROYDON.

BY F. R. HIORNS [F.]

The saving of Whitgift Hospital, Croydon, from the hands of the spoiler is an event of no small importance. We have been too long accustomed to see fine buildings, and splendid examples of the craftsmanship of past ages, subjected to ill-usage or destruction, for the generally inadequate reason of mercantile and financial expediency, not to take comfort from the plucking of one brand from the burning. After withstanding repeated attacks, through a period of over forty years, a decision securing the preservation of such a building forms a pleasing recognition of the fact that there is a real spiritual value in beautiful things, and that they should not be allowed to be tampered with or destroyed except on grounds of imperative necessity. There was certainly no necessity for touching the building in this case, or, indeed, the slightest justification for such an act of vandalism as was in contemplation. Croydon has at least this to its credit, that from the first there has been a section of its citizens enlightened enough to see that removal of its charming Hospital of the Holy Trinity would be one of the greatest disasters that could happen to their town. These representatives of the highest civic interests are deserving of nothing but praise.

The renewed attack to be made upon the building, in the form of a Bill to Parliament promoted by the Croydon Borough Council, came to the knowledge of the Institute's Art Standing Committee in the autumn of last year. The case was obviously one to which the strongest opposition was necessary, and the Committee convened a Conference with artistic, archaeological and other bodies and societies interested in preservation of the building—or likely to become so—with the result that eventually a joint committee was formed on which eighteen separate authorities were represented; each of them sending three members.

The various meetings took place, with the Council's consent, in the Institute rooms. The Committee had the active and valuable assistance of, amongst others, the Archbishop of Canterbury, Sir Aston Webb, Mr. H. V. Lanchester, Mr. Ralph Griffin, Mr. Powys, Mr. Lawrence W. C. Chubb, and the President of the Royal Institute. A large and influential deputation waited upon Col. Wilfred Ashley at the Transport Ministry in February last, and a conference subsequently took place between representatives of the opposing sides, but it became clear that the question could only be satisfactorily fought out in Parliament. An admirable brochure on the building was prepared by Mr. A. R. Powys [A.], of the S.P.A.B., with a foreword by Mr. John Drinkwater, for issue to the Press (which proved most helpful in the matter), and for the general use of those interested. On Wednesday, 18 April, the Croydon Council's Bill came before the House of Lords, when, on a motion by the Earl of Crawford and Balcarres—supported by the Archbishop of Canterbury and Lords Donoughmore, Buckmaster, Long, Meath, Parmoor, Milner, Russell, Curzon, and Montagu of Beaulieu, and carried without a division, no one dissenting—all powers for the compulsory acquisition of Whitgift Hospital were struck out. The saving of the building was thus achieved in the most strikingly effective fashion that could be wished.

The best interests of our country have been well served by Lord Crawford and his fellow Peers, in the lofty plane

attained and sustained by them all in the House of Lords proceedings. Members of the Institute will derive special satisfaction from the knowledge that the Earl of Crawford (to whom we already owe much) and Lord Milner are Hon. Fellows of the Institute, as was also the late Lord Plymouth, in whose name the Whitgift motion was originally placed on the paper, and who never failed to give sympathetic assistance to the preservation of old buildings, as well as to other interests affecting the general welfare. We shall no doubt all echo Lord Curzon's expression of satisfaction at the growing up of an increasing historical sense, linking us in indissoluble bonds with a past now so swiftly fading away, and appreciate the truth of his statement that the preservation of ancient buildings and their presence in our midst do undoubtedly imbue a spirit of local pride and add a note of beauty, tranquillity, and peace in a world of revolting garishness, vulgarity, and noise. The Whitgift question will have done much good if it has been the means of impressing such elevated sentiments and sound truth upon the minds of our countrymen.

Allied Societies

MANCHESTER SOCIETY OF ARCHITECTS. FROM THE ANNUAL REPORT 1922-23.

The Council has pleasure in submitting the annual report for the Session 1922-23.

The numbers of members are as follows. The second column shows the numbers at the corresponding time last year :

	Present.	Last year.
Fellows	130	132
Associates	115	115
Students	72	68

The Session has been a busy one. As noted in the last report of the Council, the R.I.B.A. are sending a *précis* of the proceedings at the Council Meeting each month. Several of the Allied Societies have now followed the example of the R.I.B.A. During the year the Council of the R.I.B.A. prepared a draft Bill for Registration of Architects. At a Special General Meeting of the R.I.B.A. held on 29 January 1923 the following resolution was passed : "That the Bill be not considered until the other professional Societies and interests affected have been consulted and a general consensus of professional opinion obtained in favour of the Bill." The Council has paid to the Manchester University the sum of £600 on account of members' subscriptions to the School of Architecture Fund and hope that further subscriptions will be sent in as soon as possible. The Council has also paid the sum of £60 15s. 6d. to the R.I.B.A. on account of members' subscriptions to the Fund for the Restoration of St. Paul's Cathedral, and will be glad to receive any further subscriptions. The Council again co-operated with the University and the Institute of Builders in arranging a series of public lectures at the University.

The following lectures were given :—

6 Dec. 1922, "How to Look at Architecture," Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A.

17 Jan. 1923, "Modern Architecture," H. S. Goodhart-Rendel.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

28 Feb. 1923, Sir Christopher Wren Bicentenary, Commemorative Address by Paul Waterhouse, M.A., F.S.A. (President of the Royal Institute of British Architects).

The third lecture was given on the occasion of the commemoration of the bicentenary of the death of Sir Christopher Wren, following a reception in the City Art Gallery.

Mr. Paul Waterhouse, President R.I.B.A., was previously entertained to luncheon at the Midland Hotel by the M.S.A., the Institute of Builders, and the Royal Manchester Institution. Students' competitions have been held, particulars of which will be found in the report of the Education Committee.

The Council has to report that a further sum has been received from the Barker bequest, being its share of the interest on the investments for the current year, and this has been applied to the reduction of the deficit of the General Account. The President, Mr. Francis Jones, has represented the Society on the R.I.B.A. Council during the Session, and has kept the M.S.A. posted on all subjects of interest to the Society. He was appointed a member of the Tribunal for Architects' Housing Fees by the Council of the R.I.B.A. The Tribunal, which consists of three members, met the Ministry of Health and settled the scale of fees for abandoned work in housing schemes. They have since been dealing with individual cases and settling accounts with the Ministry of Health on behalf of the architects concerned. The thanks of all members of the profession who have been engaged in housing schemes are due to the Tribunal for the splendid work they have done. The society's annual dinner was held on 14 December 1922 at the Queen's Hotel, when the Lord Mayor (Councillor W. Cundiff) and Mr. Paul Waterhouse (President R.I.B.A.) were the principal guests. There was a good attendance and the evening was in every way a success. Negotiations have been entered into with the Burnley Society of Architects with a view to its becoming a branch of this Society, and it is hoped that other branches may be formed in centres within the area of the Manchester Society of Architects.

ARCHITECTS' BENEVOLENT SOCIETY.

FOUNDED 1850.

The Annual General Meeting of the Subscribers and Donors will be held in the Rooms of the Royal Institute of British Architects, at 9 Conduit Street, W., on Tuesday, 15 May.

The President of the Society, Mr. Paul Waterhouse, P.R.I.B.A., M.A., will take the Chair at 5 p.m. The attendance of Members is particularly requested to receive the Report and Balance Sheet, etc.

INTERNATIONAL CITIES AND TOWN PLANNING EXHIBITION AT GOTHENBURG.

This Exhibition will be held at Gothenburg, Sweden, from 27 July to 12 August.

Applications for participation in the Exhibition should be made before 15 May. A limited number of forms can be sent on application to the Secretary R.I.B.A.

THE WREN BICENTENARY MEMORIAL VOLUME.

Messrs. Hodder and Stoughton announce the publication of the Wren Memorial Volume. It will be remembered that the book is published under the auspices of the Bicentenary Memorial Grand Committee and the R.I.B.A., and is intended to pay a tribute to the memory of Sir Christopher Wren two hundred years after his death. The list of contributors and contributions is as follows :—

Sertorum Depositio. By Paul Waterhouse, M.A., P.R.I.B.A.

Introduction by Sir Aston Webb, K.C.V.O., President of the Royal Academy.

Sir Christopher Wren from the personal side. J. Alfred Gotch, F.R.I.B.A., F.S.A.

Sir Christopher Wren's Parish Churches. Arthur Keen, F.R.I.B.A.

The Design of St. Paul's Cathedral. Professor Beresford Pite, Hon. M.A. Cantab., F.R.I.B.A.

Some Recent Investigations at St. Paul's. Mervyn E. Macartney, F.R.I.B.A., F.S.A.

St. Paul's Cathedral. Observations on Wren's System of Buttresses for the Dome Piers. Somers Clarke, F.S.A.

The Crafts at St. Paul's. Laurence Turner, F.S.A., Past Master, Art Workers' Guild, and W. Henry Ward, M.A., F.R.I.B.A., F.S.A.

Sir Christopher Wren's Public Buildings. Professor A. E. Richardson, F.R.I.B.A.

Sir Christopher Wren and his Plan for London. Professor S. D. Adshead, M.A.

Foreign Influences on the Architecture of Sir Christopher Wren (Dutch). Arthur Stratton, F.R.I.B.A., F.S.A.

Foreign Influences on the Architecture of Sir Christopher Wren (French and Italian). W. Henry Ward, M.A., F.R.I.B.A., F.S.A.

Pembroke College Chapel, Cambridge. Dr. Ellis H. Minns and Maurice E. Webb, D.S.O., F.R.I.B.A. (Sir Christopher Wren's First Building.)

Sir Christopher Wren's Repairs of the Divinity School and Duke Humphrey's Library, Oxford. Edward Warren, F.R.I.B.A., F.S.A.

Sir Christopher Wren the Astronomer. A. R. Hincks, F.R.S., Gresham Lecturer in Astronomy.

Sir Christopher Wren's Contributions to Biological Science. Sir William Bayliss, F.R.S.

Sir Christopher Wren, Merchant Adventurer. Sir William Schooling, K.B.E.

The Dome and the Cross (Epilogue). Rev. A. S. Alexander, Canon and Treasurer, St. Paul's Cathedral.

The entire profits from the sale of the book will be devoted to the St. Paul's Cathedral Preservation Fund.

A Special Edition, limited to 50 copies, will be signed by His Grace the Lord Archbishop of Canterbury, the Right Reverend the Lord Bishop of London, the Right Honourable the Lord Mayor of London, and the Very Reverend Dean Inge.

The volume is issued in three editions—viz., Subscribers' Edition, buckram, five guineas net; Edition *de Luxe*, limited to 250 copies, vellum, numbered and signed, eight guineas net; and a Special Edition, ready shortly, limited to 50 copies, leather, numbered and signed, twenty-five guineas net.

OBITUARY

Obituary

J. DOUGLASS MATHEWS [F.]

Mr. Douglass Mathews was one of the few surviving citizens who have always carried on practice within a few doors of their birthplace, having been born in Cloak Lane, in the City of London, 24 June 1838. He was in partnership with his father, Mr. Henry Mathews, who died in 1894 at the age of 94, and who, like his son, was daily at his office until after the age of fourscore years. Indeed, at one time, three generations were represented in the practice at the same time. Mr. Mathews took his son, Mr. H. Edmund Mathews, into partnership about 30 years ago, by whom the practice, established now some 93 years, is being continued at 11, Dowgate Hill, E.C., and who for the past four years has been sole acting partner on account of the failing health of the senior partner.

Mr. Mathews's professional career was of a comprehensive nature, and included the erection of buildings of a public and private character, such as schools, church-rooms, vicarages, commercial and mercantile buildings and houses of every description. He was practically surrounded with his work, as within a gunshot of his office he had carried out the erection of upwards of 40 buildings.

Mr. Mathews's practice was not, however, confined to the City and Greater London only, but extended into various parts of the country, and his services were in constant requisition as consultant, arbitrator and an expert witness in law cases.

For over a quarter of a century Mr. Mathews held the appointment of Surveyor to the Tallow Chandlers' Company (in which he was succeeded by his son, Mr. H. Edmund Mathews, in 1919), and carried out considerable alterations to the Hall of that company. He also rebuilt the Hall of the Innholders' Company, and compiled the history of that Guild.

He was an ardent admirer of Sir Christopher Wren's work, and at various periods he has had charge of the upkeep, restoration and decoration of four of his churches, namely :—St. Michael Royal, St. Mary Aldermanbury, St. Antholin, and St. Michael Queenhithe, the last two having been taken down. In 1874, when district surveyors in the Metropolis were allowed to carry on their private practice, he was appointed to the district of Stoke Newington, which appointment he held until 1915, when he was compelled to retire owing to age limit. Mr. Douglass Mathews was one of the oldest members of the R.I.B.A., his membership dating from 1865. He at all times took the keenest interest in its affairs, and for seven years was Chairman of the Practice Standing Committee, and of the Statutory Committee, dealing with the Examination for the Office of District Surveyor. He was also an Examiner and a past Member of the Council. In his earlier years Mr. Mathews took a very active part in the London Architectural Association, of which he is second on the list as regards seniority of membership. He was also a Fellow of the Surveyors' Institute.

Mr. Mathews was a representative of the Ward of Dowgate on the Court of Common Council, of which body he was a member for over 30 years, and for many years was nominated by Sir George Truscott, Bart., as his deputy.

He took an active part in the work of the Corporation and served on most of its Committees, and as Chairman of the Library, Freeman's Orphan School, Epping Forest Committees and for the Street Decoration and Seating on the occasion of the first visit of King Edward to the City, and was responsible to a considerable extent for the scheme of decoration then adopted. He was also Chairman of the Lord Mayor and Sheriffs' Committee when Sir George Truscott was installed in the office of Lord Mayor. On account of failing health Mr. Mathews retired from the Court of Common Council in 1921, when his son, Mr. H. Edmund Mathews, was elected in his stead. It is pleasing to record that one who was City born and gave so much time and attention to civic matters should have had the pleasure of seeing one of his daughters acting in the capacity of Lady Mayoress during the year of office of her husband, Sir John Baddeley, Bart., 1921–22. Mr. Mathews was also a Member of the Court of Lieutenancy of the City of London.

Mr. Mathews was Chairman of the South Islington Conservative Association for several years, and for many years a member of the London Diocesan Conference and Treasurer of the Islington Ruri-Decanal Conference. He took an active part in religious and philanthropic work, and was Chairman of the Widows' Friend Society, with which his father and himself had been connected for over 80 years, in which office he has also been succeeded by his son, Mr. Edmund Mathews.

Mr. Mathews was a man of integrity and the essence of conscientiousness, kindly and sympathetic in disposition, and one who quietly and unostentatiously carried out his intensely religious convictions in every action of his daily life, and of whom it can be truthfully said that he left this world the better and happier for his presence in it.

On 26 August 1863 he married Sarah Harris, the eldest daughter of Edmund Law, architect, of Northampton, by whom he is survived. Of his family of two sons and seven daughters, eight are left to share with their mother the loss of a devoted husband and father.

HARRY INIGO TRIGGS [F.]

BY MRS. W. DE L'HÔPITAL.

By the untimely death, at the age of forty-seven, of Harry Inigo Triggs the art of rural domestic architecture in its peculiarly intimate and simple English expression has lost one of our most able modern exponents, one who, moreover, out of a specialised knowledge of the science and craft of garden design was enabled to enhance the quality of his architectural productions by means of harmonious and beautiful settings and accessories. While his collateral descent from Inigo Jones, of which he was justly proud, undoubtedly served as a stimulus, success for Harry Inigo Triggs, as for many another member of his exacting profession, had to be wrested perforce from fate. Born in Chiswick in 1876, and losing his father at an early age, he left his school—the Godolphin—on his own initiative when sixteen years old and articled himself to an architect in the City, Mr. Peter Dollar. First studies in Art had been made at the Chiswick School of Art. Next he entered the classes of the Carpenters' Company, under Professor Banister Fletcher, and there carried off both bronze and silver medals. During the term of his articles he managed

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

to attend the Royal Academy Schools for five years, again achieving distinction several times as a prizewinner and eventually securing the second place for the Travelling Studentship, with £200, at the end of his term. The R.I.B.A. early awarded him the prize for Design and admitted him as Associate, while he became successively Godwin Bursar in 1906 and Member of the Council in 1910-11.

Emerged from the *status pupillaris*, experience was gained and ripened in a series of Assistantships; he worked in turn under Mr. Leonard Stokes, Mr. Henry T. Hare, Sir Henry Tanner at the Office of Works, Messrs. Eccles and Woolfall of Liverpool, and the late Mr. Unsworth.

His career was then seriously threatened—and in a man of less courage and resistance might have been altogether marred—by an illness, with haemorrhage, which unhappily resulted in chronic and lifelong ill-health. Ordered to St. Moritz, as a life-saving measure, he rapidly made several good friends, and by starting a practice in Switzerland was able to turn misfortune to good account. Among his other buildings at this period should be noted "Villa Suvretta," in the Engadine.

In due course health was sufficiently restored for his return to England, and in 1908 he entered into partnership with the firm of his former chief, Messrs. Unsworth and Son. Thereafter much domestic and garden work filled his time, and he produced, mainly in the South of England, a number of charming country houses of greater and less degree. His skill in the adaptation of old buildings was remarkable. At the time of his death he was engaged on designs for a house at Sparsholt and for a very charming Villa at Taormina, Sicily. Among his public works may be recalled the laying out of the Gardens at the Whiteley Village and fourteen War Memorials; the designing of the latter gave him the keenest pleasure.

His books on gardens, some of which are already regarded as classics in their subject, will, we are assured, prove his best and most enduring memorial. His first publication, in collaboration with Mr. Henry Tanner, Jun., was, however, devoted to *Some Works of Inigo Jones*. Together the two collaborators cycled gaily through England collecting their material. The idea of his first garden book was conceived as the result of these wanderings. Unfortunately, *Formal Gardens in England and Scotland*, whose dedication was to H.M. Queen Alexandra, is now out of print, and second-hand copies fetch high prices, especially in America. *Garden Design in Italy* is a monumental work of large format, superbly illustrated and produced under the special approval of H.M. Queen Margherita, who accepted its dedication. The author spared no pains to make a complete and beautiful record of his subject, visiting over eighty villas and palaces in Italy. He also had special access to and made a plan of the Vatican Gardens. This volume was followed a few years later by one covering a yet wider field, under the title of *Garden Craft in Europe*.

A lifelong interest in the subject of urban expansion and knowledge of the problems of town planning and adequate housing was crystallised in *Town Planning, Past, Present and Possible*, which appeared in 1909.

This record of many activities shows how little the burden of perpetual ill-health was allowed to interfere with professional duty. Indeed, his conception of his obliga-

tions as a citizen went further than with most men and impelled him to take a heavy share of philanthropic and public work, especially with regard to Church affairs. He was for some years a Churchwarden in his parish, and during his time of office laid out the Canadian Military Cemetery at Bramshott. In private life he made many friends, attracted by a singular uprightness and sweetness of disposition, allied to a vivid interest in matters of public moment. He had married in 1907 Gladys, daughter of the late Sir Edward Hill, of Llandaff, and leaves two young daughters.

At Taormina, whither he had gone in his customary winter search for sunshine, and where he had just built the Anglo-American Church, he died on 9 April, and was buried there in the little mortuary chapel of his own design, with remarkable demonstrations of universal respect.

Legal

THE ALBION IRON COMPANY, LTD.,
PLAINTIFF,

v.
EDWIN J. SADGROVE, ARCHITECT,
DEFENDANT.

This was a claim for the balance of an account for goods sold and delivered to defendant for his own house at Chertsey. The actual figures of the items in the claim were not in dispute, but defendant counter-claimed and set off for damages for breach of contract, alleging negligence, faulty goods, and unreasonable delay, which caused him heavy loss.

The case was heard in the City of London Court on 23 March, when plaintiff's counsel successfully argued a point of law that the defendant had in law suffered no damage as the acceptance of the goods—in effect—forfeited the plaintiff for any wrong he may have done in connection therewith, the defendant should have refused delivery of the goods, and the defendant's claim for damage for the delay was too remote, since, although he might have suffered damage, the measure of damages recoverable under the Sale of Goods Act is the difference in market price in the absence of special agreement, and it followed, in consequence, that defendant's counterclaim must also fail.

The evidence, therefore, was not called upon, and judgment was given for plaintiff both on the claim and counter-claim.

Competitions

LINLITHGOWSHIRE EDUCATION AUTHORITY.

COMPETITION FOR PROPOSED INFANT SCHOOL AT FAULDHOUSE.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

IAN MACALISTER, Secretary.

THE ANNUAL ELECTIONS

ACADEMIC DRESS FOR MEMBERS AND LICENTIATES.

At the Special General Meeting held on 30 April, the proposals for the adoption of an academic dress were approved in principle. The Council have appointed a Committee to consider the details of the costumes, and the Secretary will be glad to receive suggestions from Members and Licentiates for the consideration of the Committee.

STREET ADVERTISING.

On the recommendation of the Art Standing Committee, it has been decided by the Council to approach the London County Council with a suggestion that it should take steps to obtain powers to control street advertising generally, including the use of flashing and other illuminated signs upon the exterior of buildings and the disfiguring apparatus connected therewith.

PARLIAMENTARY SUB-COMMITTEE.

The Council have authorised the Practice Standing Committee to establish a Parliamentary Sub-Committee.

ANNUAL CONFERENCE OF THE NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

Mr. William A. Pite has been appointed to represent the Institute at this Conference in the place of the late Mr. Edwin T. Hall.

The Annual Elections

NEW NOMINATIONS TO COUNCIL AND STANDING COMMITTEES.

The following nominations have been made by members in accordance with By-Law 32:—

As President.—Gotch : John Alfred, F.S.A. [F.] (Northampton).

As Vice-Presidents.—Barnes : Major Harry [F.] ; Buckland : Herbert Tudor [F.] (Birmingham) ; Dawber : Edward Guy, F.S.A. [F.] ; Green : William Curtis, A.R.A. [F.]

As Members of Council.—Ashley : Henry V. [F.] ; Atkinson : Robert [F.] ; Burnet : Sir John James, A.R.A. [F.] ; Cave : Walter [F.] ; Cooper : Sir Thomas Edwin [F.] ; Corlette : Major Hubert Christian, O.B.E. [F.] ; Fletcher : Sir Banister Flight [F.] ; Fletcher : Henry Martineau, M.A.Cantab. [F.] ; Fraser : Gilbert [F.] (Liverpool) ; Keppie : John, A.R.S.A. [F.] (Glasgow) ; Lutyens : Sir Edwin Landseer, R.A. [F.] ; Milburn : Thomas Ridley [F.] (Sunderland) ; Nicholas : Charles [F.] ; Scott : Giles Gilbert, R.A. [F.] ; Tapper : Walter [F.] ; Thomas : Sir Alfred Brumwell [F.] ; Thomas : Percy Edward, O.B.E. [F.] (Cardiff) ; Warren : Edward Prioleau, F.S.A. [F.] ; Webb : Maurice Everett, D.S.O., M.A.Cantab. [F.]

As Associate Members of Council.—Bradshaw : Harold Chalton [A.] ; Emerson : H. V. Milnes [A.] ; Lawrence : George Churchus [A.] (Bristol) ; Newton : William Godfrey, M.C., M.A.Oxon. [A.] ; Waterhouse : Michael Theodore, M.C. [A.] ; Welch : Herbert Arthur [A.] ; Worthington : John Hubert, M.A. [A.] (Manchester).

As a Member of the Art Standing Committee.—Newman : Francis Winton [F.]

As Associate Member of the Art Standing Committee.—Hepworth : Philip Dalton [A.]

As Members of the Practice Standing Committee.—Grayson : George Hastwell [F.] (Liverpool) ; Nicholas : Charles [F.]

ELECTION OF COUNCIL.

The following members have withdrawn their names from the list of those to be voted on in the forthcoming Council election:—C. E. Bateman [F.] ; F. E. P. Edwards [F.] ; P. D. Hepworth [A.]

ATTENDANCES AT COUNCIL AND STANDING COMMITTEE MEETINGS, 1922-23. COUNCIL (18 meetings).

President., Paul Waterhouse, 18. *Vice-Presidents*, A. W. S. Cross, 17 ; H. D. Searles-Wood, 18 ; Chas. H. Heathcote, 13 ; George Hubbard, 3. *Past Presidents*, Sir Reginald Blomfield, 0 ; John W. Simpson, 0 ; *Hon. Secretary*, Arthur Keen, 18 ; *Members of Council*.—Major Harry Barnes, 8 ; Max Clarke, 14 ; A. O. Collard, 18 ; Heaton Comyn, 17 ; C. B. Flockton, 14 ; G. Topham Forrest, 3 ; Percival M. Fraser, 16 ; C. Lovett Gill, 17 ; J. Alfred Gotch, 14 ; William G. Hunt, 18 ; Delissa Joseph, 17 ; Sir Edwin Lutyens, 0 ; Sydney Perks, 18 ; W. E. Riley, 17 ; W. Gillbee Scott, 17 ; W. W. Scott-Moncrieff, 18 ; Herbert Shepherd, 17 ; James A. Swan, 11.

Associate Members of Council.—William H. Ashford, 13 ; Leonard A. Culliford, 14 ; H. G. Fisher, 18 ; Digby L. Solomon, 15 ; Arthur Welford, 16 ; Frank Woodward, 17.

Representatives of Allied Societies.—Edward T. Boardman (Norfolk), 10 ; Francis Jones (Manchester), 15 ; James Lochhead (Glasgow), 5 ; T. R. Milburn (Northern), 10 ; Eric Morley (Leeds), 0 ; Percy Morris (Devon), 1 ; Rupert Savage (Birmingham), 8 ; Percy Thomas (South Wales), 14 ; Edward P. Warren (Berks, Bucks and Oxon), 16.

Representative of the Architectural Association.—Stanley Hamp, 6.

STANDING COMMITTEES.

Art (8 Meetings).—*Fellows* : Professor S. D. Adshead, 7 ; Walter Cave, 4 ; Ralph Knott, 0 ; H. V. Lanchester, 2 ; Sir Edwin Lutyens, 0 ; Professor C. H. Reilly, 0 ; Halsey Ricardo, 4 ; Professor A. E. Richardson, 0 ; Professor F. M. Simpson, 4 ; William Walcot, 0. *Associates* : L. H. Bucknell, 2 ; Cyril A. Farey, 4 ; Percy W. Lovell, 3 ; T. S. Tait, 2 ; Michael Waterhouse, 4 ; Arthur Welford, 6. *Appointed by Council* : W. R. Davidge, 4 ; H. P. Burke Downing, 3 ; C. Lovett Gill, 0 ; F. R. Hiorns, 6 ; Walter Tapper, 5.

Literature (7 Meetings).—*Fellows* : Louis Ambler, 7 ; M. S. Briggs, 1 ; Major H. C. Corlette, 6 ; H. M. Fletcher, 6 ; Theodore Pyfe, 2 ; E. Stanley Hall, 2 ; Charles S. Spooner, 4 ; H. H. Statham, 0 ; Arthur Stratton, 2 ; C. Harrison Townsend, 5. *Associates* : W. H. Ansell, 3 ; H. Chalton Bradshaw, 1 ; C. Cowles-Voysey, 4 ; George Drysdale, 3 ; J. Alan Slater, 1 ; J. Hubert Worthington, 1. *Appointed by Council* : L. A. Culliford, 5 ; J. Alfred Gotch, 2 ; Basil Oliver, 5 ; Harry Sirt, 1 ; W. Henry Ward, 3.

Practice (9 Meetings).—*Fellows* : Henry V. Ashley, 7 ; Max Clarke, 8 ; A. O. Collard, 7 ; G. Topham Forrest, 0 ; William G. Hunt, 9 ; Delissa Joseph, 9 ; Arthur Keen, 5 ; Sydney Perks, 8 ; W. Gillbee Scott, 4 ; John Slater, 8. *Associates* : G. Scott Cockrill, 7 ; Horace Cubitt, 8 ; H. V. Milnes Emerson, 9 ; J. Douglas Scott, 9 ; Digby L. Solomon, 5 ; Herbert A. Welch, 6. *Appointed by Council* : Percival M. Fraser, 8 ; Francis Jones, 5 ; T. R. Milburn, 3 ; Harry Teather, 7 ; W. Henry White, 9.

Science (9 Meetings).—*Fellows* : H. Percy Adams, 0 ; W. E. Vernon Crompton, 4 ; C. A. Daubney, 6 ; Francis Hooper, 8 ; Alan E. Munby, 3 ; W. A. Pite, 2 ; H. D. Searles-Wood, 5 ; Herbert Shepherd, 5 ; Professor R. Elsey Smith, 3 ; Raymond Unwin, 3. *Associates* : Robert J. Angel, 5 ; Henry W. Burrows, 9 ; John H. Markham, 5 ; Harvey R. Sayer, 9 ; T. F. H. White, 0 ; Charles Woodward, 8. *Appointed by Council* : J. E. Dixon-Spain, 3 ; E. Fiander Etchells, 2 ; J. Ernest Franck, 7 ; A. W. Moore, 0 ; S. B. Russell, 0.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notices

THE FOURTEENTH GENERAL MEETING.

The Fourteenth General Meeting (Ordinary) of the Session 1922-1923 will be held on Monday, 28 May, 1923, at 8 p.m., for the following purposes :—

To read the minutes of the Annual General Meeting held on 7 May, 1923; formally to admit members attending for the first time since their election.

Mr. Delissa Joseph [F.] to read a paper on "Building Heights and Ancient Lights."

R.I.B.A. VISIT TO HAMPTON COURT.

A visit to Hampton Court has been arranged by the Art Standing Committee to take place on Saturday afternoon, 2 June. Members and Licentiates who wish to take part should apply to the Secretary R.I.B.A. not later than Thursday, 31 May.

BUSINESS MEETING, 11 JUNE, 1923.

An election of members will take place at the Business General Meeting, 11 June. The names and addresses of the candidates (with the names of their proposers), found by the Council to be eligible and qualified for membership according to the Charter and By-laws and recommended by them for election, are as follows :—

AS FELLOWS (12).

BHEDWAR : SORAB KEIKHUSHRO, B.A. [A. 1912], 17 Elphinstone Circle, Fort, Bombay, India. Proposed by G. Wittet, Thomas S. Gregson, D. W. Ditchburn.

BIRKETT : ISAIAH ROBERT EDMONDSON [A. 1886], Fern Lea, 25 Clyde Road, West Didsbury, Manchester. Proposed by Edward Hewitt, Paul Ogden, George Hornblower.

GUNTON : WILLIAM HENRY [A. 1910], Finsbury House, Blomfield Street, E.C.2. Proposed by Alexander G. Bond, Percy Thomas, Sydney Perks.

HARRISON : JAMES STOCKDALE [A. 1898], 7 St. Martin's East, Leicester ; Ratcliffe Road, Leicester. Proposed by Arthur H. Hind, Paul Waterhouse, H. V. Lanchester.

HEDGES : WALTER FREDERICK [A. 1921], Public Works Department, Victoriaborg, Accra, Gold Coast Colony ; Royal Colonial Institute, Northumberland Avenue, London, W.C. Proposed by the Council.

JENKINS : GILBERT HENRY [Lic. 1911], 6 Old Bond Street, W. (passed Qualifying Examination for Fellowship, 1915). Proposed by the Council.

JEWELL : HARRY HERBERT [A. 1920], 12 Great James Street, Bedford Row, W.C.1 ; 50 Cyril Mansions, Battersea Park, S.W.11. Proposed by A. Dunbar Smith, S. B. Caulfield, Owen C. Little.

LOFTHOUSE : JAMES ALFRED ERNEST, M.S.M. [A. 1895], 62 Albert Road, Middlesbrough ; The Croft, Linthorpe, Middlesbrough. Proposed by Thomas R. Milburn, W. T. Jones, Charles S. Errington.

LOFTHOUSE : THOMAS ASHTON [A. 1893], 62 Albert Road, Middlesbrough ; The Croft, Linthorpe, Middlesbrough. Proposed by W. H. Wood, R. Burns Dick, Charles S. Errington.

MAYHEW : ROBERT HENRY JEWERS, F.S.I. [A. 1901], 311 Cambridge Road, Bethnal Green ; 171 Church Street, Stoke Newington ; Edmondsbury, Genoa Road, Anerley, S.E.20. Proposed by A. S. R. Ley, Max Clarke, Herbert Shepherd.

SUTHERLAND : GEORGE [A. 1894], 26 Crown Street, Aberdeen ; 157 Duthie Terrace, Aberdeen. Proposed by George Watt and the Council.

WIGFULL : JAMES RAGG [A. 1892], 14 Parade Chambers, Sheffield ; 22 Bailsus Road, Nether Edge, Sheffield. Proposed by Edward M. Gibbs, W. J. Hale, F. E. Pearce Edwards.

AS ASSOCIATES (58).

BARTON : FRANK JAMES [Special War Examination], 3 Sunnyhill, Bruton, Somerset. Proposed by Arthur J. Pictor, H. S. W. Stone, Lt.-Col. Peter G. Fry.

BENNETT : FRANK EDGAR [Special War Examination], 32 Bedford Place, W.C.1. Proposed by Charles E. Varndell, Robert Atkinson, Edwin T. Hall.

BLAIN : ROBERT [Special War Examination], 144 St. Vincent Street, Glasgow. Proposed by Professor Charles Gourlay, John Watson, James H. Craigie.

BRADFORD : STANLEY VICTOR, M.C. [Special War Examination], 43 Endymion Road, Brixton Hill, S.W.2. Proposed by Charles E. Varndell, Charles J. Smithem, H. R. Goodrham.

BRIDGWATER : DEREK LAWLEY [Special War Examination], 62 Lightwoods Hill, Warley Woods, Birmingham. Proposed by Professor C. H. Reilly, Ernest C. Bewlay and the Council.

BRIGGS : RICHARD WARD, B.A. [Special War Examination], Rothsay, Wilbraham Road, Alexandra Park, Manchester. Proposed by Percy S. Worthington, Paul Ogden, Isaac Taylor.

BROWN : ALEXANDER WOOD GRAHAM [Special War Exemption], Shanghai Club, Shanghai, China. Proposed by the Council.

BROWN : JOHN GREY [Special War Examination], 292, Second Avenue, Longueuil, Quebec, Canada. Proposed by Professor Percy E. Nobbs, William Carless, Professor Ramsay Traquair.

BUTTON : CHESTER [Special War Examination], 137 Beccles Road, Lowestoft. Proposed by the Council.

CLARK : HENRY STANLEY [Special War Examination], 27 Wolverton Road, Stanmore, Middlesex. Proposed by G. Topham Forrest, Fredk. R. Hiorns, W. E. Riley.

CROMBIE : Alan [Special War Examination], Easington Lodge, Hadleigh Road, Ipswich. Proposed by Sir John J. Burnet, Oswald P. Milne, Paul Phipps.

FINLAYSON : MALCOLM [Special War Examination], Main Street, Heidelberg, Victoria, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.

GODWIN : WILLIAM JEAN THEODORE [Special War Examination], 33 Matheson Road, Kensington, W. Proposed by Robert Atkinson, Norman G. Bridgman, Geoffrey Lucas.

GRAHAM : RICHARD DAVID [S. 1913—Special War Exemption], 5 Thorndale Avenue, Antrim Road, Belfast. Proposed by Alexr. G. Bond and the Council.

HAILE : WILFRED LETHABY [Special War Examination], 7 Southfield Road, Cotham, Bristol. Proposed by C. F. W. Dening, B. F. G. Wakefield, W. S. Skinner.

HARDIE : JOHN STEWART [Special War Examination], 5 4th Avenue, Prescot Road, Old Swan, Liverpool. Proposed by Arnold Thornely, T. F. Sheppard, and the Council.

HART : EDWARD GOYEN [Special War Examination], c/o Messrs. Wm. Black and Fagg, 85 St. George's Street, Cape Town, South Africa. Proposed by Franklin K. Kendall, W. Hawke, Albert J. Thompson.

HENDERSON : WILLIAM ALEXANDER, C.M.G., D.S.O. [Special War Examination], 469, Chancery Lane, Melbourne, Australia. Proposed by Robert J. Haddon, Rodney H. Alsop, Walter R. Butler.

NOTICES

- HIGGINSON : FRANK [Special War Examination], Imperial War Graves Commission, Longuenesse, St. Omer, Pas-de-Calais, France. Proposed by Sir Reginald Blomfield, Sir Edwin L. Lutyens, Herbert Baker.
- HOWARD : GEORGE GERARD [Special War Examination], 12 Rockdove Gardens, Tollcross, Glasgow. Proposed by Professor Charles Gourlay, William J. Blain, David B. Hutton.
- HUNT : SPENCER GREY WAKELEY [Special War Examination], 20 Christchurch Avenue, Brondesbury, N.W.6. Proposed by Maxwell Ayrton, Sir Edwin L. Lutyens, Gilbert M. Simpson.
- ILLSLEY : HUGH PERCIVAL [Special War Examination], 134 Clandeboye Avenue, Westmount, P.Q., Canada. Proposed by Professor Ramsay Traquair, Professor Percy E. Nobbs, Philip J. Turner.
- JEFFREY : JAMES ROWE [Special War Examination], 247 Elm Avenue, Westmount, P.Q., Canada. Proposed by F. S. Baker, Professor Percy E. Nobbs, and the Council.
- JONES : IENAN ROLAND [Special War Examination], "Arwel," Sylvia Gardens South, Craig-y-don, Llandudno. Proposed by T. Taliesin Rees, Professor C. H. Reilly, G. A. Humphreys.
- KING : WILLIAM [Special War Examination], 8 Moss Road, Winnington, Northwich, Cheshire. Proposed by A. E. Powles, N. W. Harrison, Frank B. Dunkerley.
- KINGSTON : JOHN LYNDHURST, B.Arch. (McGill) [Special War Examination], Messrs. Burritt & Kingston, Hope Chambers, 63 Sparks Street, Ottawa, Canada. Proposed by Professor Percy E. Nobbs, Professor Ramsay Traquair, William Carless.
- KIRBY : STUART CAMERON [Special War Examination], 35 Bedford Square, W.C.1. Proposed by Geoffrey Lucas, H. V. Lanchester, Robert Atkinson.
- LINDLEY : CECIL JAMES WILLIAM [Special War Examination], "Eridge," Gratwickie Road, Worthing, Sussex. Proposed by Arthur J. Pictor, Haydn P. Roberts, A. Morris Butler.
- MCKAY : JOHN SIBBALD [Special War Examination], 72 George Street, Perth. Proposed by Professor Charles Gourlay, Alexander N. Paterson, William J. Blain.
- MACKAY : ROBERT STUART STEPHEN [Special War Examination], 2 St. Mary Street, Peterhead, Aberdeenshire. Proposed by Robert G. Wilson, junr., John W. Walker, J. A. O. Allan.
- MACKKEY : NICHOLAS CHARLES [Special War Examination], 37 Bridge Road, Hammersmith, W.6. Proposed by Maurice E. Webb, Sir Aston Webb, Robert Atkinson.
- MARROTTE, EDGAR SAMUEL, B.Arch. (McGill) [Special War Examination], c/o Messrs. Geo. B. Post & Sons, 101 Park Avenue, New York City, U.S.A. Proposed by Kenneth G. Rea, Professor Ramsay Traquair, Philip J. Turner.
- MARSHALL : FRANCIS WILLIAM [Special War Examination], 188 Reddins Lane, Hall Green, Birmingham. Proposed by Philip B. Chatwin, Edward Mansell, Edwin F. Reynolds.
- MARTIN : MARCUS WILLIAM [Special War Examination], 352 Collins Street, Melbourne, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.
- MEE : CLIFFORD EDMUND [Special War Examination], 19 Lamourne Road, Seven Kings, Essex. Proposed by Thos. E. Colcutt, Stanley Hamp, David Thomson.
- MORTON : HUBERT CONRAD [Special War Examination], 35 Bedford Square, W.C.1. Proposed by Robert Atkinson, Charles E. Varndell, Geoffrey Lucas.
- NESBITT : JOHN KENNETH [Special War Examination], La Tuque, P.Q., Canada. Proposed by Professor Percy E. Nobbs, Professor Ramsay Traquair, William Carless.
- NORCLIFFE : ARTHUR JAMES [Special War Examination], 136 Stamford Drive, Allerton, Liverpool. Proposed by Gilbert Fraser, E. Bertram Kirby, Edgar Quiggin.
- NUNN : JOHN PRICE, B.A. [Special War Examination], 91 Camp Street, Broughton, Manchester. Proposed by Francis Jones, Percy S. Worthington, Paul Ogden.
- PAXTON : NORVAL ROWALLAN, M.C. [Special War Examination], 12 Spring Road, Headingley, Leeds. Proposed by John Watson, David Salmond, Sydney D. Kitson.
- PHILLIPS : HERBERT ERIC [Special War Examination], Heretaunga Street, Hastings, Hawkes Bay, New Zealand. Proposed by G. W. Allsop, Wm. Crichton, James Hector McKay.
- PICTOR : ARTHUR ROBERT DALZEL [Special War Examination], Bruton, Somerset. Proposed by Robert Atkinson, Arthur J. Pictor, George Edw. Withers.
- POPE : FRANK KENNERELL, A.R.C.A. [Special War Examination], Bleadon, Weston-super-Mare. Proposed by Professor Beresford Pite, Professor W. R. Lethaby, Alexr. G. Bond.
- PRIDEAUX : ARTHUR, M.M. [Special War Examination], c/o Messrs. Nobbs & Hyde, 14 Phillips Square, Montreal, Canada. Proposed by Professor Percy E. Nobbs, William Carless, Professor Ramsay Traquair.
- RADFORD : THEODORE REGINALD [Special War Examination], "Millford," Littleham, Exmouth. Proposed by Harbottle Reed, James Jerman, Percy Morris.
- ROBERTS : CHARLES HENRY [Special War Examination], 33 Bloomfield Terrace, Chelsea, S.W. Proposed by Edmund Wimperis, W. B. Simpson, C. Lovett Gill.
- SCOTT-WILLIAMS : PERCY [Special War Examination], Department of Works and Railways, Commonwealth Federal Works Department, Treasury Buildings, Melbourne, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.
- SIMMS : HERBERT GEORGE [Special War Examination], 33 Victoria Road, N.W.1. Proposed by Professor C. H. Reilly, John Murray, Sir Henry Tanner.
- SIMPSON : SIDNEY [Special War Examination], 73, Gassiot Road, Tooting Common, S.W. Proposed by Maurice E. Webb, Sir Aston Webb, Robert Atkinson.
- SMITH : IRWIN GEORGE [Special War Examination], The Pantiles, Sudbury, Middlesex. Proposed by David Thomson, W. Bevan, Christopher W. F. Wheeler.
- STOTT : THOMAS [Special War Examination], 16 Marquess Road, Canonbury, N.1. Proposed by John H. Woodhouse, Alfred Cox, W. Bevan.
- SYMCOX : EDGAR JOHN [Special War Examination], County Architect's Department, Old Court, Springfield, Chelmsford. Proposed by George H. Widdows, Harry G. Watkins, Albert N. Bromley.
- WARR : BERNARD GEOFFREY [Special War Examination], Beach Road, Sparkhill, Birmingham. Proposed by Edwin F. Reynolds, G. Salway Nicol, W. H. Bidlake.
- WEBBER : ERNEST BERRY [Special War Examination], 15 Granard Road, Wandsworth Common, S.W. Proposed by E. Vincent Harris, Professor Beresford Pite, Robert Atkinson.
- WIGGS : HENRY ROSS, B.Sc. [Special War Examination], Hessel Grove, St. Foye Road, Quebec, P.Q., Canada. Proposed by Professor Ramsay Traquair, Professor Percy E. Nobbs, Philip J. Turner.
- WILLIAMS : JOHN CARLTON [Special War Examination], 50 Dovey Road, Moseley, Birmingham. Proposed by W. H. Bidlake, Herbert T. Buckland, William Haywood.
- WORT : WILLIAM SIDNEY [Special War Examination], 4 All Saints Place, Stamford, Lincs. Proposed by F. J. Lenton, Henry F. Traylen, Wilfrid Bond.
- WRIGHT : ALEC THOMAS [Special War Examination], 41 Have-lock Road, Norwich. Proposed by Edw. T. Boardman, George J. Skipper, Edwin J. Tench.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

BOARD OF ARCHITECTURAL EDUCATION. R.I.B.A. INTERMEDIATE EXAMINATION.

Arrangements have been made for holding the Intermediate Examination (1 June to 7 June 1923) at Birmingham in addition to London and Leeds.

Members' Column

CHANGE OF ADDRESS.

MESSRS. ERNEST G. ALLEN AND PARTNERS have changed their address from Howard House, 4 Arundel Street, Strand, to 11 Arundel Street, Strand, W.C.2. Telephone: Central 637.

PARTNERSHIP WANTED.

WANTED by well-qualified Architect, position leading to partnership, or would purchase.—Apply Box 946, c/o Secretary R.I.B.A., 9 Conduit Street, W.

ASSISTANT WANTED.

ARCHITECTURAL ASSISTANT wanted for a well-established firm of architects in Madras, with a view to subsequent partnership. Public School man desired, age 27 to 30 years, unmarried, must be a good draughtsman capable of dealing with practical difficulties of construction, knowledge of perspectives, and qualified to take charge of office. Salary to commence £600 per annum.—Apply Box 7523, c/o the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENT WANTED.

YOUNG ARCHITECT, A.R.I.B.A., with office in Kent, 30 miles from London (between London and Ashford, S.E. and C.R.) is desirous of becoming known to London and Kentish architects, and would welcome the opportunity to execute commissions on their behalf, or assist in preparation of drawings, etc., surveying and the like. Advertiser is an excellent draughtsman, good designer, experienced in good-class domestic work and public buildings.—Apply Box 8523, c/o the Secretary R.I.B.A., 9 Conduit Street, W.1.

Minutes XIV

SESSION 1922-1923.

At a special General Meeting summoned by the Council under the provisions of By-Law 64 and held on Monday, 30 April 1923, at 8 p.m. Mr. H. D. Searles-Wood, Vice-President, in the chair. The attendance book was signed by 39 Fellows (including 12 members of the Council), 58 Associates (including 4 members of the Council), 8 Licentiates and 1 Hon. Associate.

The Minutes of the Special General Meeting held on Monday, 5 March 1923, were taken as read, confirmed and signed by the Chairman.

The Hon. Secretary announced that Mr. W. Curtis Green [F.] had been elected an Associate of the Royal Academy; and it was resolved that the congratulations of the Royal Institute he conveyed to Mr. Green.

The Chairman announced that the meeting had been summoned for the purpose of considering the proposals of the Council for the revision of the Charter and By-Laws, and for the purpose of considering proposals for the adoption of an academic dress for Members and Licentiates of the Royal Institute, and stated that particulars of these proposals had been published in the JOURNAL for 14 April 1923.

The proposals for the revision of the Charter and By-Laws were discussed and, with some minor alterations, were approved.

The proposals for the adoption of an Academic Dress were discussed and approved in principle, and the Council were requested to appoint a Committee to consider the details of the costumes and to invite suggestions from Members and Licentiates.

The proceedings closed at 9.50 p.m.

Minutes XV

SESSION 1922-23.

At the Annual General Meeting (being the Thirteenth General Meeting of the Session 1922-23), held on Monday, 7 May 1923, at 8 p.m. Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 25 Fellows (including 11 members of the Council), 23 Associates (including 3 members of the Council), and 1 Licentiate.

The Minutes of the Ordinary General Meeting, held on 23 April 1923, having been published in the JOURNAL, were taken as read, confirmed and signed by the Chairman.

The Hon. Secretary announced the decease of the following members:—

Mr. James Davidson, J.P., elected Fellow 1906.
Mr. Edward Keynes Purchase, elected Fellow 1906.
Mr. Walter Wheeler, elected Associate 1879.
Mr. Joseph Henry McGovern, elected Licentiate 1912.

It was resolved that the regrets of the Royal Institute for the loss of these Members be recorded on the Minutes of the Meeting, and that a message of condolence and sympathy be conveyed to their relatives.

The Secretary announced that the Council had nominated for election to the various classes of membership the gentlemen whose names were published in the JOURNAL for 14 April 1923.

The Chairman formally presented the Report of the Council and the Standing Committees for the official year 1922-23, and informed the members that the Chairman or other representative of each of the Committees whose reports were appended to the Council's report had been asked to attend the meeting so as to be in a position to answer any questions that might be asked in connection with these reports.

The Chairman having moved the adoption of the report and invited discussion upon it, the Hon. Secretary seconded the motion and a discussion ensued, in which the following members took part:—Mr. Wm. Woodward [F.], Mr. H. W. Burrows [F.], and Mr. Maurice B. Adams [F.].

The motion having been put from the Chair, it was unanimously resolved that the report of the Council and the Standing Committees for the official year 1922-23 be approved and adopted.

The Chairman stated that the list of attendances at the Council and Standing Committee Meetings had been laid on the table and would be printed in the next issue of the JOURNAL.

Upon the motion of the Chairman, seconded by the Hon. Secretary, a vote of thanks was passed by acclamation to Mr. John Hudson [F.] and Mr. A. W. Sheppard [A.] for their services as Hon. Auditors for the past year. Mr. R. Stephen Ayling [F.] and Mr. C. E. Hutchinson [A.] were nominated Honorary Auditors for the ensuing year of office.

The proceedings closed at 9.10 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of £2s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Theories Classical and Romantic

BY WILLIAM G. NEWTON, M.A. OXON, M.C.

[*Read before the Royal Institute of British Architects, Monday, 23 April 1923*]

THE title first suggested for my paper to-night was "The Literature of Architecture." But when I came to consider the matter more closely, and to reflect that there are 20,000 books in the library of this Institute, and that if they were placed end to end they would reach from here to the Bethlem Hospital (but not back again), this began to seem too vast, and, I may add, too dangerous a quest. It seemed better, if I may reverse the old examination story, not to attempt the whole list of the Kings of Israel and Judah, but rather to spend a little time in considering the views and the worth of the various major and minor prophets.

Writings on architecture divide themselves naturally into descriptions of the past, which are history and research, treatises on the present, which are the manuals of all kinds on subjects as far apart as drainage and theatre design, and those works which, based on the past and the present, peer into the future, the works which try to arrive at principles, at a philosophy of architecture. "To forget the past," writes Mr. Lethaby in this context, "would be as foolish as to ignore the future. Behind is custom, as in front is adventure."

When we think of these latter works, we think naturally of those great tomes which adorned particularly the eighteenth century in our own country, where we are first of all told how "the ancients" did all these things; then from their practice certain first principles are deduced; and a large part

of the book is normally filled with a number of "little things of my own"—a scheme based on the model of Palladio, who is moved to great enthusiasm when he reminds himself of all the delightful buildings he has designed for so many distinguished men.

The large pages which the engraved plates demanded had a serious effect on literary style, an effect that has lasted on to our own day. The writers seem often overwhelmed by the largeness of the superficial area to be covered, and lose themselves in a very wilderness of polysyllabic nonsense, of which perhaps Inwood's work on the Erechtheum is as good an example as any. Or Chambers will say: "The architect's aim is to erect salubrious edifices" instead of "to build healthy buildings." We have this kind of thing still with us. I would have the President put all our writers for a space on a diet of one-syllabled words.

There is, I think, no little danger in all this polysyllabic vagueness. It is worth our while now and then to pause, as a profession, and consider where we are going and what we are aiming at. For, like parsons, we are over-cumbered with much serving. We run from committee to sub-committee, and from meeting to meeting, and have too little time for thought and for the exercise of that pondered skill which is after all our main title to consideration. It would, I suppose, be too much to hope that this should be the last paper read here for at least a year. In the midst of all this hurry and

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

obvious "busyness" we suffer from muddled ideas, muddled phrases and muddled standards of judgment. Nor are we alone in this. Consider the pronouncement of a distinguished American architect on the subject of composition :—

"When the plan has been well studied, then in the further development of the scheme we need only fill our minds and hearts with the spirit, the ideas, and the sentiments of our age, and study to interpret the plan, in view to reach the best results."

I can't honestly feel that such a mental feast would seriously help this distinguished architect to clothe his general conception in a satisfactory garment of form, and I don't believe that is the way he does it.

Our muddled phrases are a study in themselves. Take, for an example, the word "classical." This should mean, surely, "of or belonging to a standard." Mediæval architecture was classical for Sir Gilbert Scott. And, as will be suggested later in this paper, the appeal of Roman architecture to the architects of the Italian Renaissance was all through less classical than romantic, less, that is, a reference to a standard of past achievement than a continual inspiration from a past of which they considered themselves the heirs, and with few or no restrictive covenants in the will.

This point is made by M. Guadet in his work on architectural theory : "The classic is not a question of date, country or school. It is anything that has won through the never-ending conflict of art, anything that retains the open admiration of all men. It is Shakespeare as well as Sophocles, the Parthenon and the amphitheatre, Notre Dame and Sta. Sophia, the Farnese Palace and the Louvre. "Le classique ne se décrète pas : il s'impose."

This, perhaps, is not a very important point. But at the back of our confusion of thought is our equal confusion of phrase. And phrases are everywhere with us doing duty for thought. They are scattered about our critical writings, "Constructional function, scholarly, sumptuous, architectonic" (that loud-sounding substitute for the simpler word "architectural"), and in the colder jargon of the atelier, "Solution of programme."

We have more words, but I am not sure that we have any clearer critical principles than Vasari, the contemporary critic of the Italian Renaissance, who could sum up Peruzzi's achievement by saying that

"he never had an equal in works of architecture, seeing that, in addition to his other gifts, he combined that profession with a good and beautiful manner of painting," or set the seal of public approval on San Micheli's great Venetian fortress, as follows :—

"Wherefore that fortress, besides being marvellous with regard to the site on which it is built, is also, from the beauty of its masonry and from its incredible cost, one of the most stupendous that there are in Europe at the present day."

Vasari had a *Daily Mirror* mind. It is equally a danger in our own day.

What we are groping after is a standard of judgment, by which we can judge the works that are now being done, and which will colour our own mental processes in the travail of design.

I may say at the outset that I don't think we shall find it. The whole question is subtle, complicated and elusive. But if in the course of our inquiry the ground is cleared a little from a mass of debris, and the path a little opened for further search, the time will perhaps not have been spent in vain.

It would be fair at this point to say that I am very much indebted in the next part of my paper to Mr. Geoffrey Scott's *Architecture of Humanism*, certainly the most pregnant and closely reasoned examination of architectural theory that I have read, and one which would no doubt have made a greater stir if it had not been published so near to the date of the outbreak of the war. If anything I say sends any of you back to read him again, I shall be well content. I would also venture to remind you of Mr. Lionel Budden's analysis of Croce's Aesthetic, with his own contribution to theory as a development of it. Anything I have said about muddled phraseology certainly does not apply to this essay, which was recently awarded the Institute medal. It is a model of pleading in the Court of Chancery.

What we are groping after, as I have said, is a standard of judgment. And the first essential is to clear away a number of fallacies. I propose to give you a résumé of Mr. Scott's handling of the five great fallacies with a few comments of my own. They are the Romantic fallacy, the Mechanical, the Ethical, the Biological, and the Academic.

First, then, for the Romantic fallacy.

THEORIES CLASSICAL AND ROMANTIC

(1) THE ROMANTIC FALLACY.

Romanticism Scott defines, and I think well defines, as a high development of sensibility towards the remote, as such. It idealises the distant, and identifies beauty with what is unfamiliar.

"The Renaissance was itself a Romantic movement, the idealisation of antiquity, stimulated by the revival of ancient poetry and the enthusiastic antiquarianism of Paduan scholars."

What is the difference between the romanticism of the Italian Renaissance and the romanticism of the Gothic Revival? On certain conditions romanticism can express itself through the concrete arts.

(1) There must be no fundamental incongruity between the forms suggested by the romantic impulses and those current in architecture at the time.

(2) The romantic impulse must come at a time when the art of form is vigorous enough for assimilation.

(3) The technique and organisation required by the new ideal should be nearly identical with those of the existing forms of the art.

Brunelleschi's great dome is the outcome of a mind flushed with the inspiration of antiquity as he found it, and brooding on the problem in what he conceived to be the large and daring manner of the ancients, and yet working of necessity in the manner of his own day, a manner sufficiently vigorous and organised to assimilate the new and make it its own, and be itself insensibly modified in the process. At the time of the conscious revivals of Greek and mediæval forms later, the old building art was not vigorous enough to absorb or to repel.

From Romanticism, unabsorbed, arises the fallacy of regarding architecture as symbolic. "Gothic art," says one, "witnesses to a nation in training, hunters, craftsmen, athletes." Or it is an "expression of infinity made imaginable," or it is the embodiment of "inspired" democracy. The associative overtones, to borrow a phrase of Roger Fry's, are made the whole of the matter, as in the house which J. C. Squire saw at twilight.

"The house, that house, O now what change has come to it?

Its crude red-brick façade, its roof of slate; What imperceptible swift hand has given it A new, a wonderful, a queenly state?"

No hand has altered it—

" Only that loveliness is now accentuate
And, as the dusk unveils the heaven's deep cave,
This small world's feebleness fills me with awe
again,
And all man's energies seem very brave.

" And this mean edifice, which some dull architect
Built for an ignorant earth-turning hind,
Takes on the quality of that magnificent
Unshakable dauntlessness of human kind."

Under the romantic influence, then, the interest in architecture is symbolic, and taste capricious. Later it grows into antiquarianism and pedantry, and the romantic impulse is shackled in fetters of standard and precedent. The romantic becomes the classical, and dies.

" Yet it must not be said that 'association' has no place in architectural expression. There are two elements in every experience of art. The direct element includes our sense-experience and simple perception of form. Secondarily, there are associations which the work awakes in the mind, our reflections upon it, the fancies it calls up. Herein lies the cardinal difference between literature and architecture. In literature, which uses a mode of expression (*i.e.*, language) where meaning or association is fixed, this meaning or association is the essence of the matter, and sound, rhythm, balance are only used as an aid to the sense. In architecture, which clothes itself in a language of form, the associations of this language are not the same for various minds, but are individual and determined by accidents of time and personality. The mass, rhythm, balance, the sensuous experience of substance and form—these here are the essence of the matter." But, when once this order of priority is established, it should be recognised that these overtones of association have value. It would be absurd to demand, as a distinguished painter has recently demanded, that we should limit our delight in an art to that function which is specific and peculiar to it. "Thus to isolate our experience is to impoverish it at every point. In the last resort we appreciate a work of art not by the single instrument of a specialised task, but with our whole personality."

Here Mr. Budden too tilts with Roger Fry, and in my judgment unhorses him. "The whole business of architecture" as an art is not the "expression of plastic ideas." Architecture has to serve as the vehicle of intuitions that embody much more

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

besides. "It must express qualities of character, of social and traditional significance. It is not only concerned with solid patterns. It takes a portion of the subject-matter common to all the arts and presents it in a specific way."

A further aspect of the Romantic fallacy is a Nature worship, which inspired a school of poetry, but added confusion to architectural theory. Nature was the great source of all inspiration, intricate, strange, bold, irregular, in her visual aspects. That *κόσμος* which the Greeks, after generations of conflict and wandering, sought out as their ideal, the Europeans in the security of their years of peace, were for throwing away. Sir Reginald Blomfield has dealt with Ruskin's advice about the buttress and the dome. Perhaps a less superficial view of Nature, as a system of vast ordered movements whereby the sun rises on the just and the unjust, and tides, harvests and stars calculably function, rather than as a landscape by Piranesi, would have reinforced that sense of order which was now to be so out of fashion.

Even up to our own day Continental observers sum up our architecture as picturesque. In their view, that aspect of our work, together with "garden cities," and the arts and crafts movement, is our main contribution to European self-expression in these fields. And no doubt there is substance in the views of disinterested observers. As a people we are lovers of the countryside very long before we are lovers of the works of man. And if, by choice of colour and material and shape, we can, as it were, mute the cry of our brain's new offspring, we are content. We do not herein quarrel with Mr. Scott's view that "formal architecture is to the picturesque as the whole body of musical art to the lazy hum and vaguely occupying murmur of the summer fields." But we know that our fellow-countrymen (and perhaps sneakingly ourselves) prefer the "summer fields."

(2) THE MECHANICAL FALLACY.

The Romantic fallacy has now less hold on us than the Mechanical. According to this view, architecture is construction. This is its special quality. It is by reference to these structural laws that architectural standards must be fixed. That architecture will be best where the construction is best and is most truthfully displayed. In the forefront here we meet Professor Lethaby, and with his slow pondering and sudden explosions of candour and fire, he

is very nearly persuading us again and again. "Only by being intensely real can we get back wonder into building once more." "There is no beauty other than as the sum of certain obviously desirable qualities, such as durability, masterly construction, and a score of other factors needful to a fine school of building." "It is absurd that I should have been allowed to study cathedrals from Kirkwall to Rome; it would be far better to have an equivalent knowledge of steel and concrete construction." And he feels keenly how order and tidiness and cleanliness are the first essentials (we are a long way now from the "romantic" point of view).

And yet this clearing up the paper, and whitewashing the walls, and straightening up that "horrid mess at the corner of Tottenham Court Road," this

" Assimilating all that's sweet
To a clean house in a clean street,"

seems a somewhat frigid creed. Perhaps in our little day it is all we can aspire to. Perhaps we are wrong in hankering after Abana and Pharpur, and the waters of Jordan are all we are fit for. But at least it was not for these meagre tasks that Peruzzi laboured and Wren gave a life of unremitting toil for a paltry stipend crowned by intrigue and dismissal. At least there is something more for others more fortunate than ourselves. And perhaps if Mr. Lethaby had studied steel and concrete instead of those cathedrals, he would have learnt how to do things, but not what to do. The "intensely real" ship or machine holds him, and me, in awe, because it is unfamiliar, but the chauffeur and the second mate make nothing of it. That due balance in a single mind of mastery and wonder at once is rare indeed. Perhaps Conrad has it in the case of the ship. But to count on its growth as the result of a mechanical education is, at the lowest, hazardous.

At least, then, there is a case against this mechanical creed. Let us, with Mr. Scott, examine the view more in detail.

"Superficial thinkers have founded their case for a definition of architecture as 'construction truthfully expressed' on the work of the middle ages. Do they mean that the aesthetic impression of 'truthfully expressed construction' should bring home to us the primary constructive facts? But our impression of a spire is as 'soaring,' and a vault

THEORIES CLASSICAL AND ROMANTIC

as 'springing.' And this impression delights us. On the contrary, a consciousness of the weight and the struggle would probably oppress us.

Or will they amend their definition and say that architectural beauty is essentially beauty of structure, as such, a delight in the balance of forces, in pose, and support ; and that the purpose and function of architectural form is to underline and emphasise this, to draw attention, as it were, to the chains which bind the unsleeping forces of gravitation ? If this were the source of our delight, we should prefer St. Paul's brick cone to dominate Ludgate Hill. The outer dome would be wrong, not because it deceives, but because it removes from our notice an essential structural arrangement, and thus baulks us of a legitimate delight. If you prefer the present arrangement, as I must confess I do, it is evident that the consciousness of structure and interplay of forces is not the sum-total of the matter.

After all, structurally the most vital portions of any building are its foundations. No school of architecture, as far as I am aware, has emphasised them.

We must be clear here between structural facts and structural emphasis. The former have no place in the theory of architecture, which deals with the reaction of our senses to architectural form. A building must be structurally sound, or there may soon be nothing to theorise about. But that it is about to fall down cannot affect our æsthetic judgment of it, any more than that it is about to catch fire. It will no doubt affect our moral opinion of the man who built it. But it is important to keep modes of thought separate in matters of theory.

"As to structural emphasis, the art of architecture studies not structure itself, but the effect of structure on the human spirit. Empirically, by instinct and example, it learns where to discard, where to conceal, where to emphasise, and where to imitate the facts of construction."

I am inclined to think, nevertheless, that structural soundness is of more importance than here indicated : that it has a function, and an æsthetic function, other than that of preserving to our notice the specimen we are examining : that it lies in some sense at the heart of things, and is an axiom which must be granted before we can even begin to allow our senses to react to the stimulus of the building forms.

(3) THE ETHICAL FALLACY.

The third of the five fallacies which Mr. Scott examines is that which he calls the Ethical fallacy, the judging of a building by the suggested character of those who built it. Nowadays, and for us, Mr. Ruskin's point of attack is discredited and out of fashion. It is, indeed, a question which might well be examined, how far and in what way the character of the designer is mirrored in the character of the thing designed. Certainly their qualities do not exactly correspond. For example, a thin and ascetic building may be the outcome of the thin, ill-furnished mind of a voluptuary. Wren's firm and patient character is hardly reflected in the gaiety and rich variety of his works, which spring from a well-furnished and eagerly questing mind. It is mental rather than moral character which is most immediately echoed in works of architecture. But this is an inquiry which is yet to be made.

" Yet we must not be unjust to Ruskin. He undoubtedly raised the dignity of the subject, no less than he widened its appeal. He made architecture seem important, as no other critic had succeeded in doing. And in the second place, he maintained the principle that the arts must be justified by the way they make men feel ; and, apart from this, no canon of forms, academic, archæological or scientific, could claim any authority whatsoever over taste. This was an advance both upon the mechanical criticism, and the hieratic teaching of the schools.

" The sharp reaction of our own day from this criticism of sentiment has led to a school of criticism where each form of artistic activity is sharply divided off both from other forms and from all contact with life. As a result, the appreciation of beauty, cut off from the rest of life, neither illuminates experience nor draws from experience any profundities of its own. It extends an equable curiosity to the plans of Bramante and the furniture of Chippendale. It loses the power to interest others, to influence creation or control taste : it becomes small and desiccated. Dealing with vital human activities, it degenerates into connoisseurship." For though the moral virtues of the man are not necessarily reflected in his works, and though it is illusory to argue back from a guess at his moral qualities to an estimate of the value of his works, nevertheless, from whatever source arising, fine building does carry in it qualities which affect us as moral qualities, dignity, generosity of space-line, reticence, almost a sense sometimes of comradeship,

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

aspiring hope and humble content. To shut our eyes to this, which is a part of our reaction to this particular stimulus, is not to simplify, but stultify, criticism. It was not with such eyes that Mr. Babbitt, in Sinclair Lewis's book, looked out on a spring morning from his hill-top on to the township lying below him.

"He could see the top of the Second National Tower, an Indiana limestone building of 35 storeys. Its shining walls rose against an April sky, to a simple cornice like a streak of white fire. Integrity was in the tower and decision. It bore its strength lightly, as a tall soldier. As Babbitt stared, the nervousness was soothed from his face, his slack chin lifted in reverence. All he articulated was 'That's one lovely sight,' but he was inspired by the rhythm of the city; his love of it renewed. He held the tower as a temple spire of the religion of business, a faith passionate, exalted, surpassing common men."

(4) THE BIOLOGICAL FALLACY.

It was hardly to be expected that architectural criticism should escape the overshadowing wing of the evolutionary theory. "Growth, maturity, decadence became the keys to unlock all mysteries, alike of history and of art. Convenient, though often misleading, as a scheme for arranging the happenings of the past, it can be of no value as an instrument of criticism. For it is interested primarily in sequence, as such. It will criticise a man's work by reference to his successor. But the values of art do not lie in the sequence, but in the individual terms. To Brunelleschi there was no Bramante: his architecture was not Bramante's unachieved, but his own fulfilled. It is not interested, and can never be, in value. If it has a standard at all in this regard, it must be a standard of comparative power to survive. But such a standard of judgment is not dealing with our subject-matter at all. The mere power of an architecture tradition to survive—could we estimate it—might be a permanent quality, but hardly a relevant one. The successive moments of an art are self-justified and self-complete. To estimate one by reference to another is a dangerous method of criticism."

(5) THE ACADEMIC FALLACY.

We come last in Mr. Scott's list to the Academic fallacy, the theory, that is, of a standard by their

likeness to which all things are to be judged (as the poor human bed tries to be an image of the "ideal" bed in Plato's Republic). This was the universal attitude in our own country in the eighteenth century. "It is not to be supposed," writes Chambers, "that the first restorers of the ancient manner of building could at once bring it to a *degree of purity*, incapable of further improvement." And again, "The antique is to the architect what nature is to the painter or sculptor—the source from which his chief knowledge must be collected, the model upon which his taste must be formed." We are now perhaps less assured than were our ancestors as to the source of our inspiration, whether the ideal bed is to be Greek or Italian or mediæval or even Jacobean; but our critics are still ready to use the words "pure," "scholarly," "academic," implying reference to a model laid up in heaven. Here we come close to the question of architectural language, which will engage us shortly, but it may perhaps be said in passing that while an academic tradition is fruitful, when allied to a living sense of art, academic theory is at all times barren. So it was, for example, in the Italian Renaissance. "On the recondite prescriptions of Vitruvius the humanist architects fastened; these they quoted, illustrated, venerated, praised, and these they felt themselves at total liberty to disregard. The seal of scholarship was there, but, fortunately, the conscience of scholarship was lacking. Pedantry in that astonishing time was an ideal, an inspiration; it was not a method."

Under the heading of the Academic fallacy may be grouped the views which reduce architectural beauty to order and to proportion.

"Order makes intelligible, and assists our thought. But the act of clearly and quickly perceiving ugliness does not become more pleasant because it is quick.

"The supporters of the theory of mathematical proportion are misled by a false analogy between proportion as a form of beauty and proportion as a mode of mathematics. Our æsthetic taste is partly physical, and while mathematical proportion belongs to the abstract intellect, æsthetic proportion is a preference in bodily sensation."

* * * * *

There comes a moment in our reading of systems of philosophy when we have watched our

THEORIES CLASSICAL AND ROMANTIC

author demolish system after system till the ground is cumbered with the corpses of his predecessors, and we take a deep breath for, lo ! we have but to turn the page, and our feet will be on the road that all these poor blunderers sought and so convincingly failed to find. Now at last the little lamp of truth is to be lit, and our footsteps unerringly guided.

I desire to raise no such false hopes in your breasts. Hitherto Mr. Geoffrey Scott, like Virgil, has guided our footsteps. It is his sword that has accounted for those corpses. I did but wield a little dagger, whiles. So I would beg you let not your expectations rise too high, or hope to see the clouds rolled away and all heaven revealed.

We have found, if you have agreed so far, that architecture neither speaks nor can be judged by the language of romanticism ; and yet that overtones of association cannot be excluded.

"Like a ship forever a-sail in the distance, thought the child, everywhere the great church of Chartres was visible, with the passing light or shadow upon its grey, weather-beaten surface."

We have seen that its structural facts are not the all-in-all of its appeal, and yet to ignore the opportunity for emphasis which those facts afford is to deprive ourselves of a very potent weapon.

We have seen that while architecture cannot be judged by moral standards, because that involves a confusion of thought, yet it must not be emptied of moral content, or walled away from the whole life of man.

We have seen that while it may only be misleading to classify, it is impossible to appraise, architecture by evolutionary standards.

And we have seen lastly that, though we cannot put architecture to the inquisition of an unyielding creed, nevertheless a creed may be valuable as an inspiration.

Hitherto we have considered the question from the outside, we have been concerned with *results*, with the works of architecture and with men's opinions about them. Perhaps it will be helpful now to go inside, and see if we can track the mental processes which lead to these results. And if authority be needed for this, we are but following the example of Vitruvius. The poor "evil-omened" Roman (as Guadet calls him) has been much misunderstood, because he put into one corner of his work some notes, and those rather inaccurate, on the orders of architecture. It is as though we would judge the Old Testament solely

on the merits of the Genealogies. But long before he comes to the orders, he gives his definition of the contents of architecture. Architecture, he says, is made up of six things. Four of these are external qualities, proportion, rhythm, symmetry, composition (with a sub-heading of drawing-plan, elevation and perspective), and two of them mental qualities, "meditation,"* which is "careful study, application, watchfulness, with delight" (recalling the $\mu\acute{\epsilon}\theta'\eta\delta\sigma\nu\eta\varsigma$ of Aristotle's *Ethics*), and "resourcefulness,"† which is the "solution of difficulties and vigorous reductions of new matter to order."

And Mr. Budden, in his recent essay, is equally interested in the mental process. "Conceptions are the mental stuff of architecture ; all architectural works are the symbolic expressions of conceptions ; and the object of these works is, by expressive indication, to transmit the conceptions from the minds in which they have originated to the minds of others." What precisely is meant by the word "conceptions" is, he writes, difficult to describe verbally. "The image or idea must necessarily be a visual one, not a vision simply of pattern, of composition in mass, line and space, but a vision which is informed by the essential spirit of the subject, by its purpose, structure, social significance and traditional heritage (according to the relative importance of each in the composition) : by its whole complex interest, in fact." These are the lines on which the mind functions. About beauty we are not to trouble ourselves. It is a quality resulting from this mental process if rightly conducted. We shall get into confusion if we first determine what beauty is, and then work back to consider the process which is to produce it. To put his view in a simpler field of activity, the golf-course, if we learn how to swing, the ball will travel its two hundred yards, but by analysing the flight and distance of the ball, we shall never arrive at the way to swing.

I think Mr. Budden's views, so far as I can grasp them, are a reasonable and adequate statement of the mental process of architectural creation. And though you might feel that it is no less a true description of a mental process which will issue in deplorable work—that the Crystal Palace was exactly so produced, and the Hotel Cecil—I think he would be able to point to a defect in the

* Cogitatio : Cura studii plena et industriae vigilantiaeque cum voluptate.

† Inventio : Explicatio questionum obscurarum, ratioque novae rei vigore mobili reperta.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

original vision, an over-emphasis here on social significance, or an under-emphasis there on traditional heritage—and at any rate it will not produce an accidental and incoherent result, the little houses in Lewisham or the muddle at the corner of Tottenham Court Road.

But still, though he says we are not to take thought and be anxious—that if we act thus, beauty will be added unto us, we do feel anxious, we haven't the faith, and beauty is rather important.

Some hold that beauty will grow out of function, as a submarine, an aeroplane, a ship are beautiful. But what are the functions of a house? Shelter, they say, and labour-saving devices and cleanliness and sunshine and drains—or some such modern summary. But herein is not all. Let us appeal again to Mr. Sinclair Lewis :—

"The Babbitts' house was five years old. It was all competent and glossy. It had the best of taste, the best of inexpensive rugs, a simple and laudable architecture, and the latest conveniences. Throughout electricity took the place of candles and slatternly hearth-fires. In the halls were plugs for the vacuum cleaner, and in the living-room plugs for the piano-lamp, the electric fan. The trim dining-room (with its admirable oak buffet, its leaded glass cupboard, its creamy plaster walls, its modest scene of a salmon expiring upon a pile of oysters) had plugs which supplied the electric percolator and the electric toaster. In fact, there was but one thing wrong. It was not a home."

For it must also be a background for the dreaming of dreams.

For Mr. Geoffrey Scott the key to beauty lies in humanism, as follows :—

"The spaces, masses, lines of architecture, as perceived, are appearances. These appearances are related to human functions. These masses are capable, like ourselves, of pressure and resistance; these lines might be our path, and our gesture. Thus, the appearance of instability awakens in us a physical memory, the condition of spirit which accompanied some actual experience of our own of thwarted effort, or incipient collapse. Or, on the other hand, we sympathise and identify ourselves with appearances which do not correspond to the structural facts, we soar with the spire, and are brooded over by swelling domes. The whole of architecture is unconsciously invested by us with human movements and human moods."

In connection with this point of view it is interesting to note that the act of drawing, which is the first overt act of creation, is after all but a gesture used to link movement with shape. And this is the summary of his creed. "Man as the savage first conceived him, as the mind of science still affirms, is not the centre of the world. He is but one of her myriad products, more conscious than the rest, and more perplexed. He may cower before it, or study it impartially. It remains alien. Or he may construct, within the world as it is, the world as he would have it be. This is the way of humanism, in philosophy, in life, in the arts."

Interesting and suggestive as this theory is, it is perhaps likely to be more help to the critic than to the creator, and to the philosopher than either. These obscure promptings lie perhaps somewhere at the back of things. But as yet we lack, what Mr. Scott too desires, a psychology of architectural form, a tabulated examination, that is to say, into the question of what exactly are the architectural forms that are employed in works that have given indubitable pleasure, and how with variations in these our pleasure also can be found to vary.

The problem of architectural form is peculiarly to the fore in the world to-day. Russia, in the recurring revolt against forms which are identified with a discredited past, is trying out of her inner consciousness to evolve an architecture that shall bear no relation to anything man has hitherto made, but shall somehow sum up the triumph of the idea of the electrically driven proletariat state. Holland is discontented with old shapes and playing with her bricks in all manner of new ways. Germany, on paper, at least, is experimenting with a new manner, where the function of the building is underlined by the shape, which is further to be conditioned by an unfettered use of the newer materials, steel, concrete and glass. Of these new modes of expression there are yet too few examples for adequate criticism. But at the back of them all seems to lie a certain hysteria, a hysteria from which, anyhow in theory, we are not ourselves free, of self-consciously striving to be "of to-day." With ourselves it takes perhaps more generally the view that we must not mislead posterity. With these other nations it is more a desire to make a clean sweep after the war. But posterity can take care of its own antiquarianism. We can never be other than ourselves, and always recognisable, so far as is necessary. And is the world so very different that we need a complete

THEORIES CLASSICAL AND ROMANTIC

re-orientation? To Noah on Ararat, no doubt, changes would occur as desirable and necessary. But this desire for root and branch clearance is surely a little hysterical for us. Many minds, no doubt, and many points of view have been profoundly modified, but still we marry and are given in marriage, and there is even yet that old crowd at Fenchurch Street Station which Matthew Arnold remembers.

It is no new world, that we need be in so great a fever not to lag behind what we imagine to be the spirit of the age. "An architect," says Wren, "ought to be jealous of novelties . . . and to think his judges as well those that are to live five centuries after him, as those of his own time. That which is commendable now for novelty will not be a new invention to posterity . . . but the glory of that which is good of itself is eternal."

It is no new world, but it lies with us in some degree to make it, with all the enthusiasm of the humanist, what we would have it. And to see a little more clearly through certain confusions and errors will help us on our way. As we read the works of M. Guadet or sit at the feet of those who derive their teaching from the French traditions, all this travailing in thought seems at times superfluous. "Solve the programme." "Seek your dominant, and be simple." "Architecture is the working up, for the satisfaction of material and moral needs, of the elements of construction."

And a great service has been done by this school of teaching, which insists on a survey of all the factors of the problem, the digesting of all the needs, spiritual as well as material, the due balance of each against the other, as a preliminary before the conception can be allowed to take form in the mind. This is how, in fact, we work. We concentrate, I will not say precisely on the plan, as that implies a one-dimensional way of thought, but on that sense of shape, disposition, massing and spacing which in happy moments seems to grow out of a mind saturated with the elements of the programme in its fullest sense. It is on this, the primary solution of the programme, that competitions are judged; and this has the odd outcome that buildings which were built, to put it unphilosophically, on account of the merits of their plan, are for the rest of their life judged on the merits of their external appearance. No doubt it is true enough to say that this external appearance is in a real sense conditioned by the "plan." But we de-

ceive ourselves if we hold that it is absolutely so conditioned. The "plan" in its fullest sense, in which I include all spacing and massing and shaping generally, only gives it a start, sets it out on a certain path. The dress is going to have an importance for ever after out of all proportion to its share in the original conception. I am sure it is now all to the good that we should concentrate, both in teaching and in practice, on what we might call the general conception, the primary solution of the programme. Here there is a reasonable foothold, and canons of criticism can gradually be established. But always in our judgments we must be alert to appreciate the *whole* of the programme, the "besoins moraux," as well as "materiels," the low voices of sentiment or tradition no less, in their due measure, than the clarion calls of axis and mass. On these lines we may prosper. But all the time we shall acknowledge that the distinction between conception and dress is conventional. We may adopt it for convenience of thought, and even for convenience of practice. But all the time we may be sure that we are falling short of our aim, until we can find the two fusing in our minds, until we can begin our solutions not only in terms of mass and shadow and line, but in terms of mass clothed in material of texture and colour, in terms of line definitely contoured. Athene must spring fully armed from the brain of the creator.

I don't know if you will quite see what I mean. It is difficult in these abstract matters not to be led away by metaphor and picture. But the question of what we call style in architecture is really indissolubly connected with the question of the general conception. The advantage of times when all men draw from one source is that they can say so much more. They are using a language understood. Form becomes significant. Where Peruzzi omits an order, his friends will impute a motive.

Language is a system of understood meanings, the currency of thought. But its meanings merge and change more swiftly in architecture than in speech. What for Fra Giocondo was the "Roman manner" is for us, his successors, pearly with the dew of the fragile early Renaissance. We too have a language, a system of associated meanings. The very fallacies themselves which we have been examining earlier in this paper are a potent source of such associations, here imbuing a particular set of shapes with romance or nobility or a hint of Pharisaism, there leading us to expect a certain

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

emphasis upon structural fact. It is all a language in the same sense, though not in the same degree, as a common style is a language. If we do not find the structural emphasis we shall ask why, just as Peruzzi's friends would in his parallel case. But in degree it is a less dependable, less certain tongue. Its values shift and change, meanings come and go, and differ widely in different mental strata. But though the language is elastic and varying, we mustn't lose sight of this great source of emphasis. To crown the hill with a spire is to speak in one idiom, to evoke a certain complex of emotions in our own fellow-countrymen : to crown it with a dome is to speak in another idiom, and arouse a different complex. Thus style is not indifferent. The various forms are an instrument to our hand for the associations, however illogical, they evoke, for the ideas, however fallacious, they currently stand for. Even Roger Fry, building his house with his eyes tight shut to associative values, cannot escape. Inevitably, if he is successful in his attempt, his work will, from its very unlikeness to others, evoke associations ; it will not be judged solely by its plastic values : it will carry a meaning : its meaning will be revolt.

But the instability of this language, of the values of associative content, will make us use it with caution, will drive us back, whether we are conscious of it or not, to a simplification of the style, of the idiom in which we have chosen in a particular case to work. We shall have less acroteria, and more serenity : less fanaticism about mouldings, and more quest of sheerness or mystery. And the necessities of our own time will contribute to this simplifi-

cation. Where there is little to spend, effects will be simple. Perhaps a certain flatness and even grimness will grow naturally and gradually—not as the outcome of an ascetic mind, but arising almost of itself out of the materials at our disposal, and the craftsman's widespread ideal of tidiness and finish. Perhaps, as has been held, ornament will die out, as tattooing has.

We shall not then be half ashamed of styles, but use them as a language, a difficult and shifting language indeed, but not without meaning. Only a master can use it aright, but we shall all try to use it, so that we may speak to our fellows.

But at the back of it all, and as the source of all our strength, we must keep in mind the permanent qualities of architecture, those that we sum up in the abstract phrases about mass and void and rhythm and line. This is the language in which our first conceptions are clothed. In this language we can speak to our fellow-craftsmen, but not yet to our fellow-citizens. And, above all, we shall be conscious of what I might call the "all-roundness" of architecture, its extraordinary privilege of taking a piece of space and making it its very own, of moulding the very envelope of this globe here and there to its own uses. Here the sun itself is our slave to cast shadows at our bidding, and the night comes to aid our mysteries or heighten our deliberate cosiness. Ours is a great privilege, to make the background of other men's lives. But to wield so potent a spell needs a master of magic. If haply here and there we fall less far short than we had feared, we may be well content.

Discussion

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR.

Professor A. M. HIND, M.A., O.B.E. (Slade Professor of Fine Arts, Oxford) : It was with very great interest that I accepted your kind invitation to come this evening to hear this paper, and it now gives me equal pleasure to ask you to pass a vote of thanks to Mr. Newton for it. I particularly sympathise with his lamentation at the beginning concerning the enormous bulk of the literature on art subjects. I think all of us who work on any special side of the history of art, or the practice of the arts, feel the influence of that bulk. There has been far too much verbiage. In a sense, I think it is better to see a work of art and say "I like it," or "I don't like it," than it is to go into very much criticism or analysis. Analysis and criticism, or philosophy, constantly take us away from the actual

works of art. At Oxford one is up against a large proportion of men who are enormously interested in the philosophy of art, but who know very few works of art. If you approach art from that point of view, you almost certainly come to wrong conclusions ; and it has occurred to me to mention a personal experience of the last few months. A tiny daughter, who is pushed in a perambulator round Bayswater, has gradually realised these more romantic elements in architecture, and asks for conducted tours to see particular "bells," which she is interested in—she speaks of all church towers as "bells," because to her they are the receptacles of bells. She speaks with satisfaction of high towers like that of St. Matthew's, and she says she does not like things such as the Greek Church. There

THEORIES CLASSICAL AND ROMANTIC

is here the beginning of the instinctive love of things of beauty ; for the excrescences of architecture, which border on the romantic, and perhaps the least important side. The essence of architecture is not to supply towers and domes, but they are the things which are expressive of our instinctive love for things of beauty ; and architecture with the view of supplying you with a comfortable home is no better than engineering which supplies a bridge which you can walk across. So it is that added interest which gives virtue to great architecture, though the combination of true virtue on both sides is the thing to be aimed at in the end. I feel the difficulty, with Mr. Newton, as to what the romantic is in architecture ; it is an associational thing, it touches our human interest, and therefore romantic architecture is just as much in Greek and Roman as treated by the mind of the Renaissance architect and painter, as it is in mediæval ; it depends on the uses and associations which have been bound up with particular buildings ; and in that way it is, perhaps, even more the painter of architecture who is concerned with romance in architecture than the architect himself. Another point in Mr. Newton's address, a small point, which gave me great pleasure, was his reference to Vasari as "*The Daily Mirror* critic of the sixteenth century." I prefer a critic of Vasari's character, who makes the work of art live in your eyes, bringing it into relation to the lives of the people of his period. I prefer this kind of criticism to the philosophic treatment of art which one gets to-day from Croce. And one owes a tremendous debt to the simpler appreciators and chroniclers of art and life such as Vasari and Pepys.

There is another reason for my having a special pleasure in proposing this vote of thanks. I wish, especially in relation to Oxford and my work there, to express our gratitude to this Institute's Board of Education for their very kindly and helpful interest in the attempts which the Committee for the Fine Arts in Oxford is making to inaugurate in some way, and encourage, the study of architecture in Oxford. There are very few people in Oxford who desire a professional School of Architecture, and I also would deprecate it. If a man goes to Oxford or Cambridge his best opportunity lies in the broadest education he can get there, and happy are the architects who have had that chance before they took up their professional work. So my definite aim in trying to get further pieces of art study in addition to the Slade Lectures, which have been hitherto regarded as outside the University curriculum, is to bring such pieces of study into relation to the Humanities at Oxford. The Modern History Board have recommended the suggested lectures on architecture to the general Board of Faculties ; and I hope it is only a matter of a few weeks before we obtain the necessary grant of funds to start in the next University

year. What adds greatly to my pleasure in hearing Mr. Newton to-night—and I do not think it is committing any indiscretion to say it—is, that if the General Board grant the money, it is to Mr. Newton we shall look to inaugurate that study. This is the first time I have heard Mr. Newton, and I am certain we could not have a saner guide for men who are studying the Humanities, whether or not they are intending to take up architecture seriously later on. The beginning is very important in regard to the general scope of study which might be set before students in Oxford in architecture before they take up their professional studies. I am thinking of the dozen or more in Oxford at one time who may become architects later. And I think that by careful consideration it will be possible for certain historical portions of the study to be taken in the University, and arrangements might perhaps be made by which the Institute would grant certain exemptions which would save the University man some time in his professional studies. Beyond that, in actual detail, I do not think that at present we wish to go. But if we did so much, I think it would encourage more men to risk the spending of several years on the Humanities before taking up their strictly professional studies.

Mr. S. D. KITSON, M.A. [F.], seconded the vote of thanks.

The PRESIDENT : I believe we are honoured to-night with the presence of Lord Justice Warrington, and if he will address us I am sure we shall be pleased to hear him.

The Right Hon. LORD JUSTICE WARRINGTON : I feel great hesitation in saying anything at all about the subject of this lecture. I am not an architect, though I hope I am a lover of art, and I have none of the technical art knowledge which would enable me to address such an audience as this.

But may I say one word on one part of this extremely interesting lecture ? It is that part in which Mr. Newton referred to the fallacy of structure. In architecture, to the ordinary layman, I think, structure has a very important bearing, whether it be the material of which the building is built, or whether it be the style in which it is constructed. One says, instinctively, that a certain building is built of the right material, that that building is built in a mode which is suitable to its surroundings ; and not only that, but it is built so that it will answer the purpose for which it is required. With regard to material, you have only to travel down the roads in the neighbourhood of London, which is not a stone country, and you will see at once that the materials of which the houses are built is the material near at hand, and it is the suitable material. Look at those fine old houses of the eighteenth century which border the road through Berkshire as you approach, and as you leave, Reading. Look at some of the houses which were built in the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

immediate neighbourhood of London by the rich people at the end of the eighteenth century, merchants who had their houses in the suburbs and drove into the City every day. They suit the place where they are and the materials are appropriate. Then pass, as I frequently do—living in a brick country—the extreme borders of a brick country, to a country where stone is found. There you see the same kind of thing ; you would hate to see a brick house in that country ; it is the stone house which appeals to you there as being right.

So, too, with construction. There, to a large extent, the style of construction depends on the material. But I have always thought—though I may be wrong from the architect's point of view—that for a home there is no house like the house built in the early part of the eighteenth century ; the plain square house, with at least all the best rooms looking one way. The point is, that beauty consists in the appropriateness of the style of building to the purpose for which it is required. I do not deprecate ornament, if it is consistent with the main purpose of the building.

The PRESIDENT : I am sure the audience will be interested in hearing a letter which has been received from Mr. Baldwin Brown, a great architect and thinker who at one time was very much in our midst here, and who now chooses to live in Scotland, and whose utterances are rarer than they used to be.

19 April 1923.

DEAR MR. MACALISTER,—I am much obliged to the President and Council for so kindly sending me a card for the meeting on Monday night, when Mr. Newton is to read his Paper on "Classical and Romantic," and I am very sorry that I cannot be present. The old days when one could with comparative ease "run up to London" are for me no more, as I am held now very closely by University and other work. I should have liked to be at the meeting, as the subject is one of much interest, and is often discussed, though most commonly from the literary point of view. I am inclined to think that the difference between Classical and Romantic is largely one of race. The southerner, with his clear-sightedness and consciousness of self, contrasts with the northerner, who feels the attraction of the vague and unknown, and is capable of self-abandonment. We may compare the dispassionate accurate survey by Dante of his Inferno with the awful formlessness of Milton's Hell, and remember that for the most part it was the French and the English who fought and died in the Crusades, while the sagacious Italians were working the profitable carrying trade between West and East.

The difference seems to come out with special clearness as it is illustrated in architecture. I do not know if the younger members of the profession read Edward Freeman, the historian's, *History of Architecture*. He brings out, I think, particularly well the difference between Classical and Romantic, as the two principles are embodied respectively in the Doric temple and the Gothic cathedral. He regards the one as the most perfect expression of the Hellenic genius, in that it is measured, defined, complete, and presents itself to be seen on every side and in every part ;

while the mediæval church embodies a suggestion of the infinite. "Place yourself," he writes of the latter, "where you will, the view is boundless, nothing occurs to force a limit on the eye in any direction ; interminable rows of columns branch away to every point, arch is seen through arch, every feature suggests something beyond itself. Stand a little west of the rood screen ; you see into the transepts, but you see not their full length ; the eye is caught by their eastern arcades, suggestive of the aisles and chapels beyond. If the rood screen is pierced, you see the choir stretching before you, the slim arches beyond the high altar giving a faint glimpse of chapels yet far away, or the mighty reredos proclaiming, while concealing, their existence ; or if all this is completely hidden, you at least see the roof-line stretching on till it is lost in the distant perspective. Above, the roof must bound your vision ; but here the whole temple seems rising heavenwards, and beneath the lantern a glimpse is given of a still loftier height, a glimpse only of a height which might be absolutely boundless. Even the apertures of the triforium, and the narrow passages of the highest range, give a hint of something yet further, of interminable mazes leading you know not whither. . . ."

The French, of course, are blended of south and north, and the logical consistency of their Gothic construction is a southern trait, but I always feel that it is the romantic spirit of the north which really rules in Gothic art.

We are well off here, in Edinburgh, for testing this, for while we have our good classical pieces we possess also in the interior of St. Giles's a curiously good illustration of the point Freeman makes. From the strictly architectural point of view the church is unimportant, yet I know of no building of the kind that, from the number and distribution of its spaces, gives more effectively this impression of distance beyond distance, of an unknown something round every corner, of perspective and light and shade that are always full of new suggestion.

I hope there will be a good discussion on the Paper.

Yours sincerely,

G. BALDWIN BROWN.

Mr. F. R. HIORNS [F.] : I am sure we are all agreed that an abstract subject such as Mr. Newton has brought forward to-night is one which it is very difficult to discuss. But I also feel that it does merit discussion, and that is my only reason for interposing remarks of my own. And we are all under the very great difficulty of having had no idea of the way in which Mr. Newton would treat his subject.

In the course of his Paper Mr. Newton referred to the importance and the value of a study of traditional styles of art, and I thought, also, he rather suggested it was important for us to develop a style of our own to-day. I was a little surprised at that, because it seemed that, about a generation ago, we realised that a great deal more attention was paid to the study of styles and the application of dead styles than should be, and that it was rather a thing we should endeavour to forget. But another question Mr. Newton referred to was the desirability of our trying to arrive at some standard of criticism for modern buildings, and that is a very interesting subject for thought. I am sure we realise the

THEORIES CLASSICAL AND ROMANTIC

importance of everyone, and especially architects, studying the great styles of past ages, from Egyptian work, such as we see in Mr. Walcot's drawings on the walls, to the Greek, the Roman, works of the Early Christian, Mediaeval and Renaissance periods, and so on to the present day. But I always feel that while it is very necessary for us, as architects, to have a generally complete knowledge of the great work of past ages, our use of these traditional decorative styles, if one may put it so, should, in relation to our own work, be applied unconsciously rather than consciously. I think that all great art is really one thing, whether it be European or Asiatic, and wherever we take it from; there are certain root principles, which apply to them all, from which we learn things of value to us at the present day. But any attempt to work in the style of a past period is, it seems to me, wrong, because a building should really, and above all things, be designed suitably for its purpose, which can only be done when we look at the problem essentially from the standpoint of present-day requirements. In attempting, moreover, to apply a standard to buildings we must certainly have regard to their setting, which is, of course, the essential basis of the attention we now pay to town-planning. And we should conscientiously seek to see that our buildings are designed in such a way that they fulfil their purpose in the best manner, and that they are expressed as architecture in terms of the finest craftsmanship we can produce.

I am sure we are indebted to Mr. Newton for bringing forward this subject; and it is of especial interest to the younger men, because it has always seemed to me that one of the defects of the "Beaux-Arts" method of education is that there is rather a danger of attempting to express design in building in terms of the temple or the palace, which means a danger of not placing the problem on its merits, and of being too consciously and unnaturally influenced by past work. I feel that, while we should seek to learn from the past all that is essentially important, we should, in our attempts to design buildings at the present day, concentrate on feeling and expressing in the most direct way what is the problem of the moment.

Mr. H. S. G. BUTLER [A.]: The last speaker said this paper should appeal particularly to the younger men. I know most of the work he has referred to, and it was that remark which made me rise. I have read Mr. Scott's book about fourteen times; I had to review it for the *Burlington Magazine*. It was rather a tiresome book, because the language is so mellifluous that it rather sweeps one away. And, as Mr. Newton faintly suggested, the destruction is so terrific that you expect rather more constructive thought at the end. But I know Mr. Scott personally, and he will not perhaps mind my saying these things.

With regard to the mental process in connection

with architecture, it has amused me to think about it. My conclusions are as follows: Mr. Lionel Budden said that we have conceptions which, when we bring them out so as to be enjoyed by other people, automatically achieve beauty by doing that, by what he calls "the correspondence in unity" between the conception and the thing which is produced. I thought about that for some weeks, and failed to understand it. I do not quite know what he means by "the correspondence in unity," except that if you take what Hegel says and what Mrs. Russell Barrington, Mr. Roger Fry and Mr. Felix Clay say, and boil them all up and think about it, you will arrive at something like this: Firstly, beauty does not exist; it is an æsthetic value. That is Mr. Clay's idea. It is rather a disturbing thought. When I first grasped it, I was disappointed to think there was not such a thing as beauty in noble statues and great buildings and wonderful paintings; that they were, after all, like legs of mutton, quite dull things and that somebody had taken particular pains to make them, and that was all. However, perhaps in a weak moment, Clay said æsthetic value is due to some particular quality in the object, to which we attach æsthetic value; so, after all, there is a particular quality to analyse. And if you think about that for a long time I suppose it is what Mr. Budden called unity, and what I call harmonious unity, even if there is redundancy in these two words; because I think that together they suggest what we all feel when we have achieved a jolly bit of design, that it is a serene result of a lot of conflicting thoughts, feelings and ideas and goings-on on paper. If that is beauty, we might define it as æsthetic value which we attach to an object for the particular quality in it of harmonious unity; and art is the apparatus which exhibits in physical phenomena, pictures, statues, buildings, and so on, that quality of harmonious unity, and that is really the very inside of beauty. If I might go on, I should add the terrible subject of what is called significance, which many people have wrangled about. Mr. Bell confused it, I think, in his book on art, by talking about significant form, and he emphasised and insisted that it was only pattern which mattered. It is the post-impressionist creed. But I think part of the æsthetic value which we attach to objects for their beauty is due to the significance of the form, the vague significance suggesting mass, or weight, or movement, or strength, or subtlety, or speed, not the significance which the person who built Fonthill attached to battlements. That beauty may therefore be more elaborately defined as the æsthetic value which we attach to objects for their quality of harmonious unity, with the proper significance which is due to that object; which is the beginning of what the speaker before the last was perhaps suggesting when he talked about fitness and appearance of fitness, because in the art of architecture, as in all arts, it is a matter of appearances. That is what

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

we might call the appearance of propriety, the propriety which Vitruvius wrote about.

Mr. W. E. VERNON CROMPTON [F.] : I would like to add my tribute of admiration for the paper which we have heard this evening. In saying that, I would emphasise the delightful exposition we had in that book which the last speaker told us he has read fourteen times. I think I have read *The Architecture of Humanism* about six times ; and always when I read it I picture to myself the room behind this one, where an eminent member of the Institute was found with that book in front of him. He was turning over the pages in a listless way, and then he shut the book up and said, "I can't make out what it is all about." That appears to have been the attitude adopted by many of our members towards philosophic criticism ten years ago. We are this evening carrying on, in a subtle way, a discussion on æsthetics, a thing I have not heard here before. Croce has been mentioned this evening, and my secondary object in rising was to emphasise the importance of that name with reference to the revelation of æsthetic thought which is taking place nowadays. We have Scott—Croce with a difference ; we have Lionel Budden—Croce with a difference ; and now we have Newton—Croce with a difference. We have also Abercrombie and many other writers rather imbued with Croce, writers on the plastic arts, on painting, and music also. Consequently we should, I think, as members of the Institute, pay more attention to a very remarkable pronouncement by an Italian philosopher, who, although he writes in rather a difficult way on a very difficult subject, is well worth studying. Because, if we can get a glimmering of what he is driving at, and what Geoffrey Scott is driving at in his *Architecture of Humanism*, we shall find our way out of the morass in which we have got on æsthetics in the nineteenth century. If we can get hold of Croce's idea that æsthetics must be regarded as a separate thing, apart from ethics and logic, we shall be on better ground. I differ from the suggestion of the mover of the motion that philoso-

phy does not count for much ; because if we had had during the last generation a more philosophic and careful way of looking at æsthetics, and a greater intention to define our meanings, we should not have struggled along so aimlessly as we did with the Gothic Revival.

The PRESIDENT : Mr. Newton knows me well enough, and some of you know me well enough to know that there is a very great deal I should like to say to Mr. Newton about his paper. But I have no wish to shadow the declining weeks of my Presidency by becoming seriously unpopular ; consequently I propose to let you off entirely.

But there is one thing I should like to say with reference to Professor Hind's remarks. As an old Oxford man who, by the accident of life, has become an architect, I should like to tell him how very greatly we value what he said about a close touch between that University and this Institute (that has been brought about by our very happy conference with him and his Fellows on the subject of the establishment of his teaching of architecture in Oxford) ; and particularly by the view that he takes as to the nature of what that teaching should be. We are in accord with him, and we here rejoice in the fact that we have been consulted in the matter, and in the extremely gracious way in which whatever overtures we have been able to make have been received there.

Mr. Newton's paper has given us very great pleasure. It has surpassed my expectations, and I look forward with pleasure to reading it over carefully and pondering it at leisure. I now put the vote of thanks, which I hope you will receive with acclamation.

Carried by acclamation.

Mr. NEWTON (in reply) : I can only thank you for the very patient way in which you have listened to a rather hoarse voice for an hour. I do not think that one can really settle these philosophical problems, as it were, all at once. I thank you very much for the way in which you have listened to me.



JOHN NASH

John Nash, 1752-1835

BY W. HILTON NASH [F.]

AS the "passing of Regent Street" is now going on rapidly, it may not be out of place to record some interesting facts relating to it, and also of its architect, John Nash.

The Georgian era brought into being many architects of note, but perhaps no other of them had the genius

and at the same time meet the views of the employers, by paying also strict regard to convenience and economy. Architecture in this respect is the most complex of the fine arts, and demands versatility of talent, a combination of genius with common sense, and also taste with practical experience."



PORTRAIT OF JOHN NASH BY SIR THOMAS LAWRENCE AT JESUS COLLEGE, OXFORD *

of organisation, and the power of carrying out a great conception, like that of the architect of Regent Street and the adjacent buildings. The art of architecture combines not only that of design, but the faculty of business, as the architect of one of the villas in Regent's Park said : "The architect is constantly meeting with obstacles and impediments which rarely become known to the public ; works are subjected to criticisms the most unreasonable. The great difficulty for those engaged in the profession is to please the eye of the critic

I.

It is generally believed that John Nash was born in 1752, of Welsh parents, at Cardigan in Wales, and died in 1835, at his house at East Cowes, Isle of Wight, at the age of 83, thus adding another to the number of octogenarian architects. Little is known of his early life, and Benjamin Ferrey, who wrote later in his Recollections of A. W. Pugin, contradicts the assertion that he was born in Wales, and states that he was born in London, and that his parents, having some private

* A large photograph of this portrait was secured for the Institute by Mr. C. F. Bell, the keeper of the Department of Fine Art, Ashmolean Museum, Oxford.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

fortune, were able to place their son with Sir Robert Taylor, the leading architect of the day. He had a daughter named Anne, who is often alluded to in his correspondence with Sir John Soane as "Sweet Anne Page."

The house which he first occupied in London was 29, Dover Street, and later, when Regent Street was built, he removed to No. 14, Regent Street, where he had a large gallery of pictures and statuary. There is no doubt that he employed the large success gained by his practice in adding to his collection, and he is known to have engaged four artists in Rome to copy the best paintings of Raphael in the Vatican, for which he obtained the sanction of the Pope.

When Nash first started in practice is not known, but he was associated with many of the leading architects of the day, including G. S. Repton, John Soane, and Smirke. Those who were his pupils at his office in Regent Street speak feelingly of him for his constant kind and considerate treatment. He often invited them to his home which he built at East Cowes, known as East Cowes Castle. The arrangement of his office, where each assistant had his private desk and compartment, showed that he had some consideration for the comfort of his staff.

It has been stated that perhaps no professional man ever obtained greater success in his pursuits than this architect, and he was often called "the great John Nash," and caused a good deal of jealousy among his contemporaries by being the especial friend of the Prince Regent. As his private architect he rebuilt Buckingham House, which was afterwards called Buckingham Palace, and also the Pavilion at Brighton, and made alterations and additions to Windsor Castle.

The Government business which was under the control of the Board of Works was put into the hands of three architects, Nash, Smirke, and Soane. On the death of George IV, Soane was employed by William IV, who eventually knighted him.

Augustus Charles Pugin was one of Nash's assistants. It appears that the architect had advertised for an assistant, preferably a foreigner (why is not certain), and when Pugin appeared in answer to the advertisement he was ushered into a room where there was a foreign nobleman who was also an applicant. Pugin himself was a French refugee, and possibly Nash wanted an assistant with a knowledge of French, in which language he himself was deficient. At this period there was a mania for building noblemen's mansions in a Gothic or castellated style, and Pugin's new employer advised him to study Gothic, as there were no books from which details could be supplied. Pugin entered into the idea so heartily that he was able eventually to produce his well-known books on Gothic Architecture.

Nash may in some sense claim to be the founder of

the Gothic revival, for if he had not sent Pugin on his travels to sketch and study Gothic detail, the revival might have been delayed for many years, or might not have come at all. Pugin's books had undoubtedly a great influence on the minds of the architects of that period.

The earlier Georgian period produced finer works of art than those erected at the beginning of the nineteenth century, and when Nash commenced practice it must be remembered that the prevailing taste was for Greek, or at any rate Classic, architecture. Little effort was, however, made to modify the antique types to suit modern requirements and the rigour of our northern climate. Well-proportioned porticoes without any reference to their positions, and pediments where roofs could never exist, were continually being erected. The same thing took place later in the Gothic revival, though not to so great an extent, and a consistent plan was sacrificed to producing what was called a "pretty effect." Small windows were used so as to give a monastic appearance, and the gloom of the London Law Courts helped to bring Gothic into disrepute.

It was fortunate that Nash did not fall into these errors, and his buildings were eminently suitable to the times, though the planning would not satisfy modern ideas. His construction is generally sound, and though his buildings in Regent Street were coated with plaster, there was no scamping of the brickwork underneath.

Sanitary science was then in its infancy, and the fine blocks of buildings and terraces which he built round Regent's Park were deficient in bathrooms, and lavatory accommodation was frequently placed in the middle of the house, with no external ventilation. It seems that bathrooms and due regard to sanitation came in with the Gothic revival.

Some writers assert that Nash was a miniature painter and also that he painted theatrical scenery, but this is probably incorrect, and they have possibly confused him with Edward Nash, who lived at this period and had considerable skill as a miniature painter, and was a pupil of Shelley. He is mentioned in Dr. Williamson's work on miniature painters. He was a great-uncle of the present writer, and painted many portraits of the Rajahs and potentates in India.

Nash was a man of large conceptions and enterprise. He was the friend and private architect to George IV, and it was due to his influence with the King when Prince Regent that Regent Street was formed, cutting through a mass of mean and squalid streets, and making the West End of London worthy of a great metropolis. He was masterly at laying out gardens and towns, as is shown by the way in which he laid out Marylebone Park, afterwards called Regent's Park. He obtained a pre-eminence in the arrangement of masses and general artistic effect, which in those days seemed somewhat lacking. The design for laying out Regent's Park was

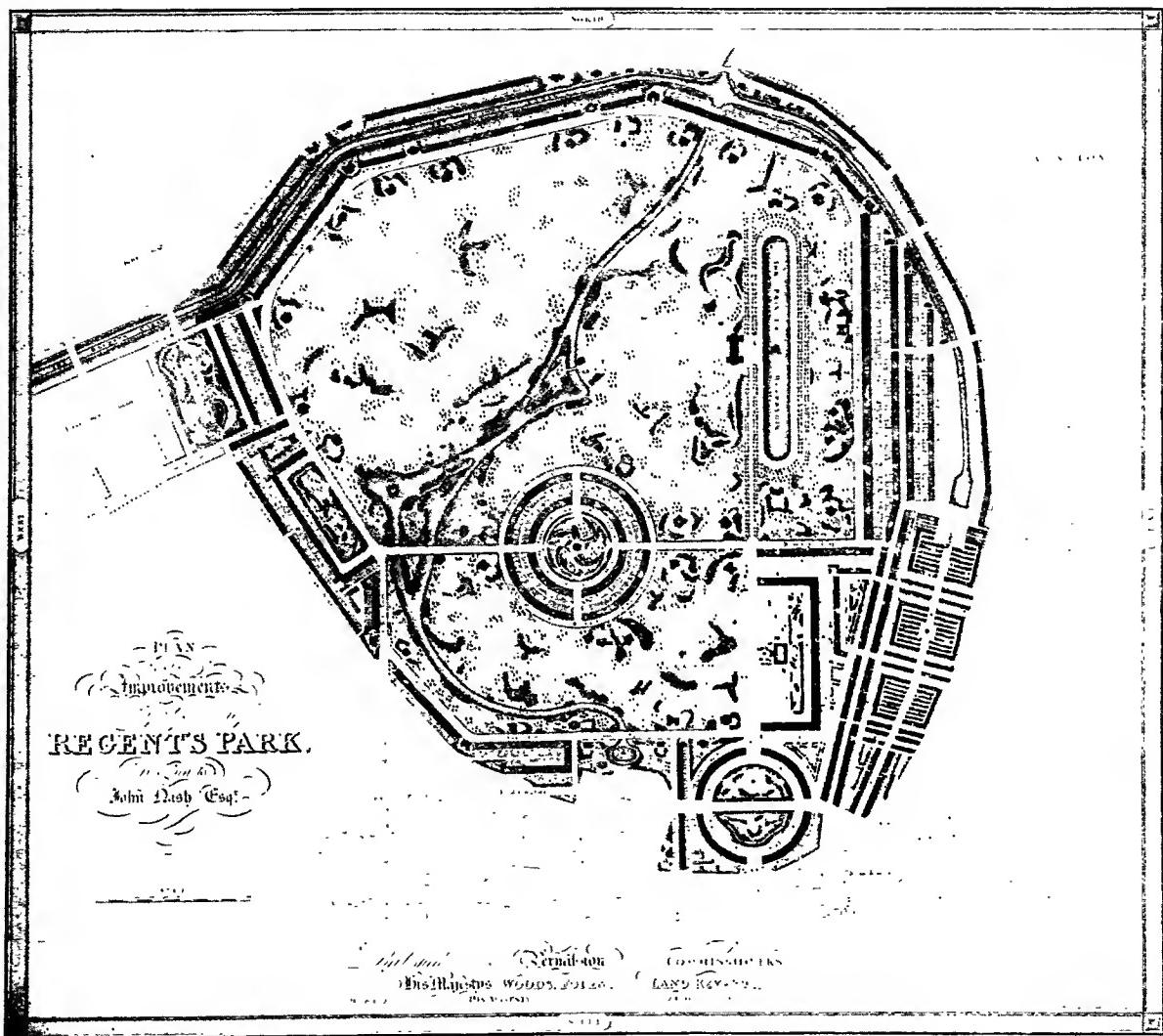
JOHN NASH

obtained in competition. Two other plans are shown in White's book on London improvements—one by a man named Chawner, and one by White himself.

The laying out of Regent Street is perhaps Nash's greatest work. He did not forget that in designing a new street it should be considered as a complete whole.

Some of the streets in Paris, such as the Rue Lafayette, exhibit this characteristic, but the latter, grand as

Senior United Service Club.
Regent's Park Terraces.
The Quadrant, Regent Street.
British Artists' Gallery (with J. Elmes).
East Cowes Castle, Isle of Wight.
Gracefield Lodge, Kilkenny, for Mrs. Kavanagh.
Loughcooter, Co. Galway.
Roscommon, Co. Roscommon.



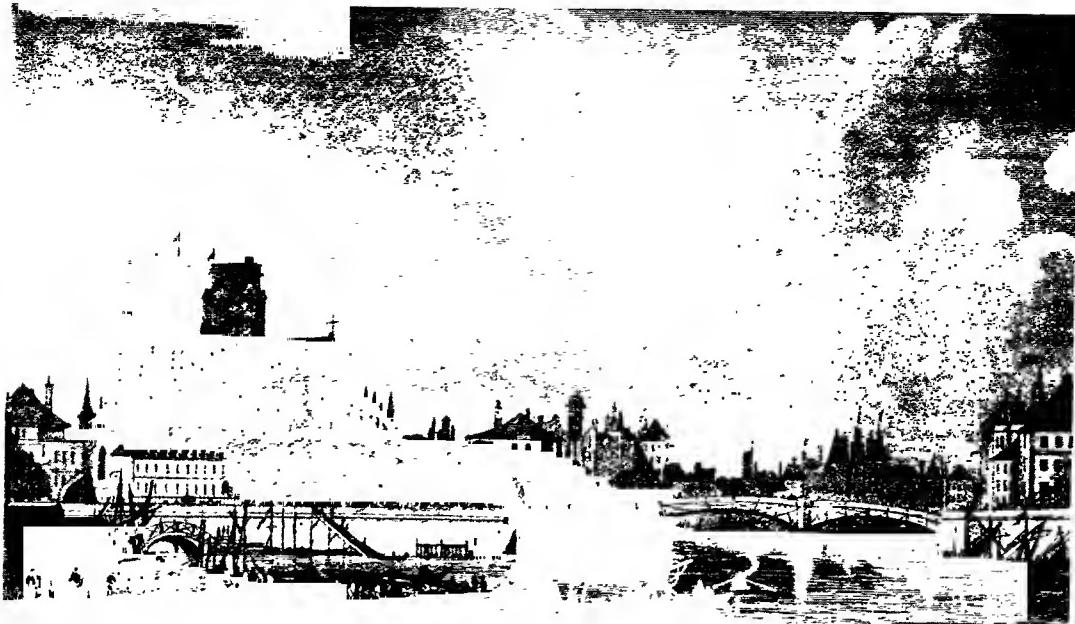
PLAN OF THE IMPROVEMENTS AT REGENT'S PARK, DESIGNED BY JOHN NASH

it is, is monotonous, and should have been divided into blocks as we see in Regent Street. The Avenue de l'Opéra was not designed by one architect, but the work was carefully controlled, and each new block had to conform with the opposite buildings.

The following is a list of John Nash's principal buildings:—

Haymarket Theatre (with G. S. Repton).
Buckingham Palace.

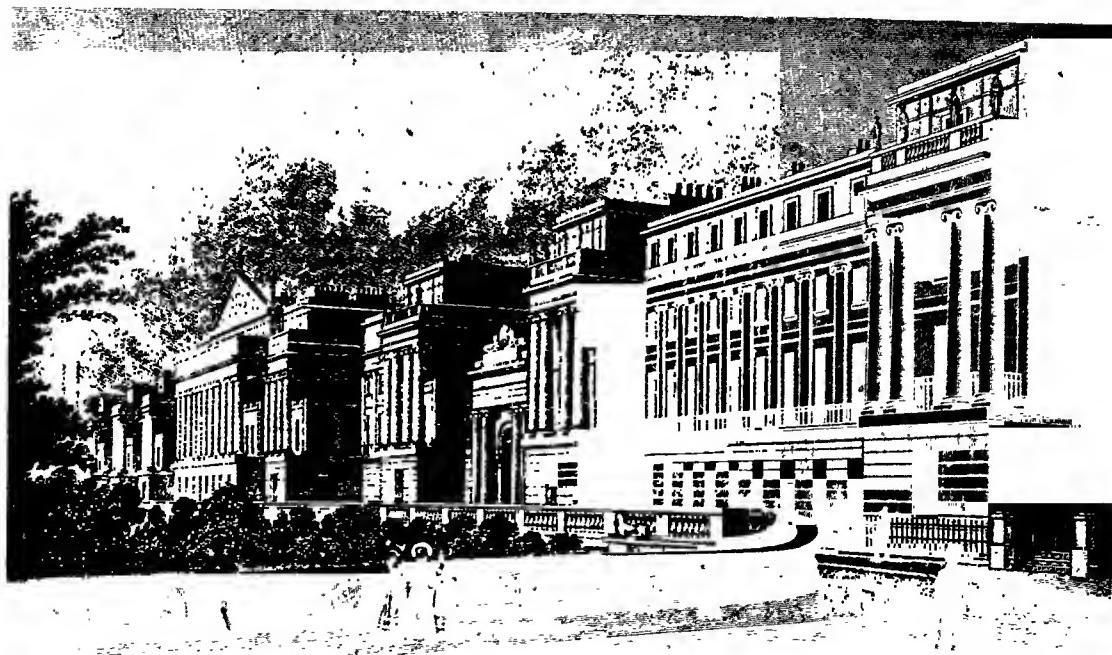
Strabally, Ireland.
Kenturch Park, Herefordshire (castellated).
Garmston, Herefordshire (castellated).
Ingestre Hall.
Duke of Richmond's Villa.
Guildhall, Newport, Isle of Wight.
St. Mary's Church, Haggerston.
All Souls' Church, Langham Place.
Childwall Hall, Lancashire.



J. Nash, delt.

Westley, sc.

NOTRE DAME ET A PONT ROUGE



Drawn by T. H. Shepherd Engraved by J. Tingle

Architect James Thomson

CUMBERLAND TERRACE, REGENT'S PARK

A Plate dedicated to John Nash, Architect to the King, from *Shepherd's Metropolitan Improvements*

JOHN NASH

II.

REGENT STREET AND THE QUADRANT.

About the year 1812 there seems to have been a desire to make a wide street from Carlton House to Marylebone Park. The Prince Regent was heartily in favour of the scheme, in which he showed his insight, for it must be remembered that although he was given over to the pleasures of life he was naturally a very shrewd man, and in many ways gave evidence of this. The streets that were demolished to make room for the new street were St. Alban's Street and a nest of small streets known as St. James's Market. The new street was completed seven years after the Act was passed, of which more will be said hereafter. The original plan does not seem to have included the Quadrant, as shown on the plan by Wyattville. It is said that the Prince asked Nash how he would get over the connection between the upper and lower part of Regent Street, and Nash took his pencil and drew the curve which now forms the Quadrant. It seems a very simple solution, but like many simple things does not seem to have been thought of before. It reminds us of the story told of Bramante when he submitted his design for the great dome of the Cathedral at Florence (a story which is often attributed to Columbus). He asked for an egg to be brought and then asked each member of the Committee to make it stand on its end. On their failing to do this, Bramante took a knife and struck off the end of the egg, and stood it on the table. "Oh, we can do that," said the Committee. "Yes," said Bramante, "and so you will say when you have seen my dome."

The Quadrant had originally handsome colonnades in front of the shops, but these not only darkened the shops, but afforded a promenade for the loose women who frequented that part of the town. The columns were taken down some years after erection, in 1848, and the façade was altered by Penne-thorne. By the removal of the columns the whole beauty of the façade was destroyed.

The clearing away of the filthy and narrow streets which stood between Pall Mall and the New Road, Marylebone, and which were destitute of sewers and contained a honeycomb of cesspools, was a work of great magnitude and sanitary welfare, and was one of the greatest London improvements since the time of Charles II. The great sewer which extends from Portland Place to Whitehall may be said to rival the great Cloaca Maxima which served for the draining of Rome, and the buildings round Regent's Park could not have been drained unless this sewer had been constructed.

The purchasing of the various properties in the line of the new street was a serious undertaking, and the cost was enormous. The author formerly possessed several of the architect's reports and valuations, which have unfortunately been mislaid. If it had not been for

the royal patronage and help he received, the task would in those days have been almost impossible, and it reminds one of the improvements carried out under the great Baron Haussmann in Paris in the time of Napoleon III.

The architects who furnished designs for the various buildings included Sir John Soane, Decimus Burton, Smirke, and Abraham; but the general scheme and the design of the façade were left to Nash, as the architect to the Commissioners.

It is to Nash's credit that he allowed the lessees to appoint their own architect, on the condition that the houses were to be faced with cement. This appears strange and arbitrary, but it must be borne in mind that stone in those days was difficult to procure and very expensive, so that if the houses had been stone-fronted the lessees would have been put to considerable expense, and the street could not have been completed in the short space of seven years. This constant use of stucco gave rise to the well-known epigram :

"Augustus at Rome was for building renown'd,
For of marble he left what of brick he had found,
But is not our Nash too a very great Master,
He finds us all brick, and he leaves us all plaster."

One cannot entirely denounce the use of plaster, as if it is well done and frequently painted, it is a very good material for use in London. Look at some of the gloomy streets, such as Baker Street and Harley Street, where the brickwork is black with a coating of soot. If these streets had been built like Regent Street, and the fronts painted every three or four years, they would have had a cheerful appearance; and, in spite of the doctors, Harley Street might not have obtained the designation of the "Valley of the Shadow." Nash certainly did much to promote what has been called "cementitious architecture," and almost all his works in London were in imitation of the forms originally designed for stone. This also may be seen in the works of Palladio at Vicenza, which owing to neglect are now in a deplorable condition. The impression on the mind of stone details is no doubt somewhat depressing, and the falsity of effect cannot lead to truth in construction. In Regent Street the façades were built in Roman cement and mastic, and where they have been properly treated have lasted well for nearly a hundred years. John Nash says : "In setting out the new street there were difficulties and circumstances which made it most advisable to make the street in the line it now is. If a straight line had been continued from the Regent's Park to Carlton House, it would have passed through St. Giles, leaving all the bad streets between the new street and the respectable streets at the West end of the town, through which the persons residing in the better street and the Members going to the House of Commons and the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

House of Lords must pass before they can use the new street. In forming that street my purpose was, that the new street should cross the eastern entrance to all the streets occupied by the higher classes, and to leave out to the east all the bad streets, and as a sailor would express himself, to hug all the avenues that went to good streets, to effect which is the cause of the line the new street exhibits."

He says, further, he received no remuneration for building the Quadrant. "The Quadrant was built by myself; I took the ground of the Quadrant, being a peculiar sort of building it was obliged to be erected at once, and the speculation was too great for one person. I therefore entered into it and took the ground at the price it was offered to others. I then formed the design and let it out to a set of builders, and advanced a large sum of money to enable them to build, to the tune of £60,000. I do not think the Quadrant would ever have been carried into execution in any other way."—
22 April 1828.

He was badly remunerated for his work on the new street, and he says : "I will tell the Committee what I was obliged to do for that fee (one half-year's ground rent), and is not one-fourth of the charge Mr. Cockerell put down. I negotiate the original purchase of the ground, negotiate the letting of the ground, make the design for the elevations ; I set out the ground for building, I superintend it in the general way during execution, I draw the plans on the Leases ; for all which I receive a fee of half a year's ground rent and supposing I let a plot of ground for a house, say for twenty guineas a year, I receive ten for it."

As Professor Reilly says in his article on "London Streets and their Recent Buildings," the completion of his friend John Nash's scheme must have been for George IV a veritable triumph. Without moving out of doors he could view from the windows of Carlton House the lower part of the street to Regent Circus. From this point the noble sweep of the Quadrant would not be visible, yet enough could be seen to show that at the King's bidding Nash had planned the finest street in the metropolis. The effect of the fresh plastered buildings in place of the dirty brick erections which formerly occupied the site must have seemed as if a magician's wand had been waved.

The United Service Club in Waterloo Place designed by Nash and the Athenæum Club by Decimus Burton on the opposite corner show what two great architects could achieve by the simple treatment of masses without any unnecessary adjuncts with which the present-day architect is wont to encumber his buildings.

The Haymarket Theatre with its noble portico was designed by Nash, in conjunction with G. S. Repton, who was occasionally joined with him in his work.

ALL SOULS' CHURCH.—Great discussion took place and much satire was launched at the design for All

Souls' Church, Langham Place, and, as Britton says : "It was animadverted on with more severity than justice, and more satire than fair criticism. It is so very easy to criticise an architectural design, but the critic if called upon to design something better would fail lamentably." Someone once told a critic that he knew nothing about the subject he was commenting on, and he replied : "I cannot lay an egg like a hen, but there is no doubt I am a much better judge than a hen of an omelette."

This church was caricatured in the Press and discussed in the House of Commons, but it has survived, and is now considered as part of the scheme in the rebuilding of Regent Street, and it cannot be criticised as an insulated edifice. Placed immediately at an obtuse angle formed by Regent Street and Langham Place, it was desirable that it should end the vista and take the eye off an awkward angle. The spire, however, seems hardly appropriate to a classical composition, but the circular peripteral portico, almost detached from the body of the edifice, is not without distinction. The church was built at the expense of the Government, and cost £16,000.

III.

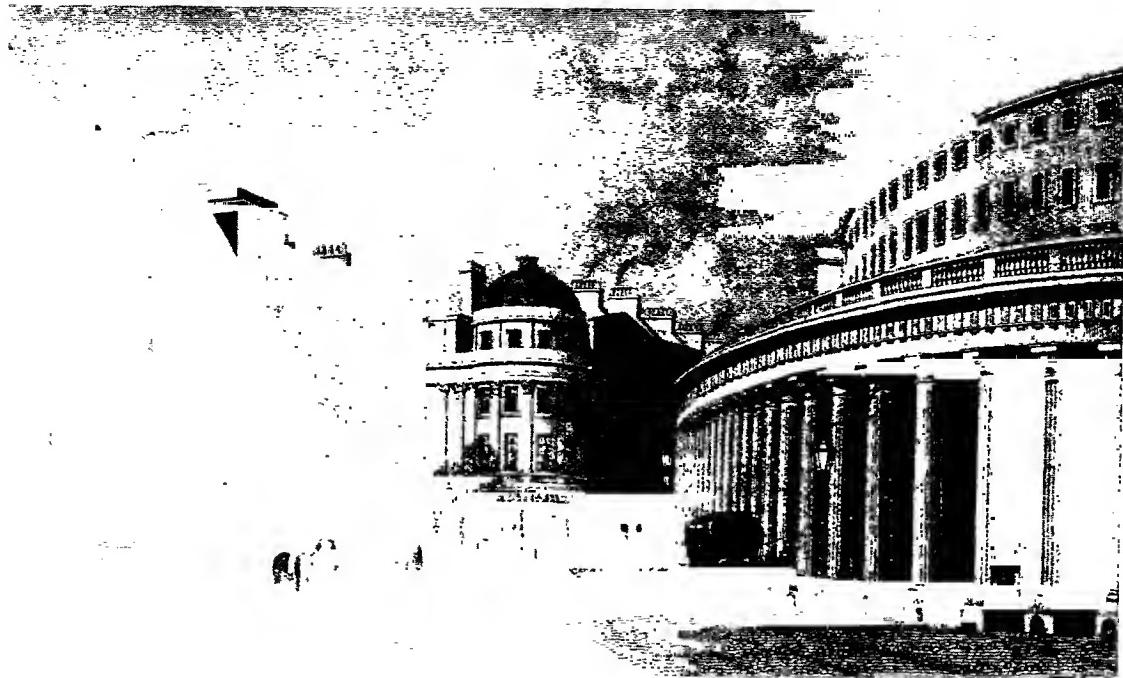
In the days when George IV was Prince Regent his chief residence was Carlton House ; it was stated by the Duke of Wellington that the Royal Palaces were not suitable to the dignity of the Crown, and it was thought that a more fitting residence should be at once erected.

The Prince Regent was continually moving from his London Palaces to the Pavilion at Brighton, driving down in his coach with a merry party on board, and it may be asserted that with all his failings he was an admirable whip, and on account of the steep gradients in parts of the road between London and Brighton the road, at his request, was cut away and lowered, as we can witness at the present day at Sutton and Reigate. Carlton House then stood in what is now Waterloo Place, between the Athenæum and the United Service Clubs. It had a magnificent suite of reception rooms, but otherwise was not well suited for a residence. The Athenæum Club contains a remarkable collection of prints showing Carlton House with the screen of columns in front designed by Nash, who also made large alterations to the interior. When Carlton House was demolished these columns, together with the large ones forming the portico, were afterwards used in the building of the National Gallery.

BUCKINGHAM PALACE AND MARBLE ARCH.

The Palace was built in the reign of George IV on the site of Buckingham House from the designs of Nash, and completed in the reign of William IV.

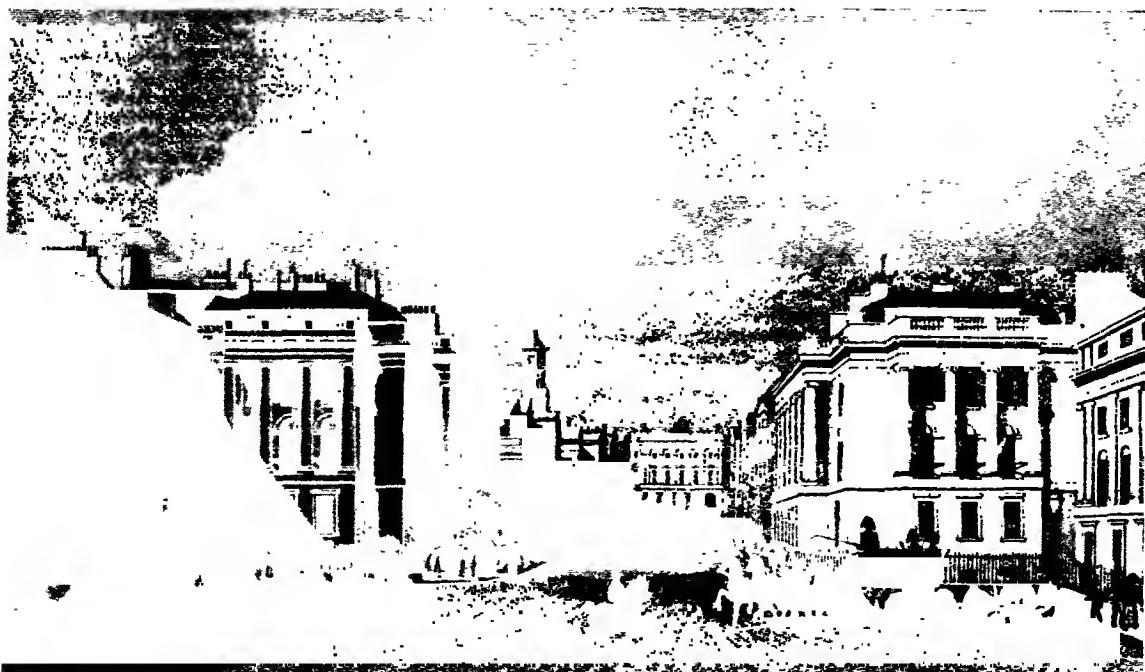
There was no fitting Palace for the King, according to the Duke of Wellington, who said, in the House of



Drawn by Thos. H. Shepherd

Engraved by Wm. Wallis

THE QUADRANT AND PART OF REGENT STREET



Drawn by Thos. H. Shepherd

Engraved by W. Tombleson

WATERLOO PLACE AND PART OF REGENT STREET

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Lords, on 16 July 1828 : " Yet I must say that notwithstanding the great expense in building the Palace, that no Sovereign in Europe, I may even add, perhaps no private gentleman, is so ill lodged as the King of this country." When the grant was given by Parliament it was intended only to repair and enlarge Buckingham House, and therefore the old dimensions were retained. This no doubt hampered the architect and hindered him from making such a design as he would have approved of.

Some interesting facts were elucidated in the report of the Select Committee of the House of Lords on Buckingham Palace in October 1831. About this time there was a great public outcry on the expenditure on the Palace, and a Select Committee was appointed to inquire into the matter. Blore was called in to complete the work, as the Committee reported they could not approve of the architect's conduct. An extract from a Treasury Minute, 15 October 1830, is as follows :—

" Upon the whole, My Lords see in the paper no



PORTRAIT BUST OF JOHN NASH BY W. BEHINES (R.I.B.A. COLLECTION)

Large alterations were made when Queen Victoria came to the throne, and Edward Blore was employed as architect, and erected the front portion which faces St. James's Park. The Marble Arch then stood in front of the Palace, and was removed to its present site in 1850. This arch was designed by Nash at first as a Stone Arch, and is a proof of his skill in monumental architecture. It is after the style of the Arch of Constantine

justification for Mr. Nash's conduct ; the estimate submitted to and sanctioned by Parliament has been exceeded by a large amount, the progress of such excess has been concealed from My Lords, and their earlier interposition therefore prevented, but no proof has been brought before your Committee that Mr. Nash wilfully concealed the estimates."

The first estimate for the Palace was £262,690, and then was afterwards amended to £496,000, and on this

JOHN NASH

the Treasury in 1825 ordered the work to proceed, and it appears that there was no contract, but the architect employed all the workmen, and the work was measured and priced by the Office of Works. In answer to the question when the architect was giving his evidence, "Was the Marble Arch included in the first estimate?" he said : " Not as a Marble Arch, but as a stone arch." The marble used was Ravaccione from the Carrara quarries, and the architect sent a special agent (one Mr. Brown) to Italy to treat for the marble and select it. The marble for the arch cost about £30,000, not including Westmacott's work on the sculpture.

It was provided in the architect's estimate that certain valuable works of art should be removed from Carlton House and placed in the Palace, but instead of that they were removed to Windsor Castle, so that he had to exceed his estimates by a very large amount. When examined before the Committee, he was asked : " Could you give any idea of the articles that were sent to Windsor Castle, which you expected to be used in Buckingham Palace ? " Answer : " No, but the articles substituted bore no comparison with those sent away ; for example, a chimney-piece sent away would be worth £90, and the chimney-piece substituted by a design signed by the King might have cost £300 or £400." In answer to another question, the architect said : " The marble chimney-pieces, exclusive of the marble as near as I can estimate them, came to £18,970." This seems a very high price when you think of the difference between the value of money in those days and at the present time. Question : " By whom were those expensive designs furnished ? " Answer : " By me." Question : " Then from the year 1825 to the year 1828 you conceived your authority to carry into execution whatever the King ordered without the approbation of the Treasury." Answer : " Certainly—I did not conceive, till February 1828, that I received any orders from the Treasury not to execute the King's commands."

When the Duke of Wellington came into office, " the Chancellor of the Exchequer and himself both verbally desired me to execute any works without the express orders of the Treasury."

Nash reported that he proposed to use Bath stone, which, he stated, was better than Portland stone, and was cheaper and easier to work. So it appears that a similar mistake was made in using the wrong stone as was made in building the Houses of Parliament. In the latter case a Royal Commission was appointed, and the stone chosen was Ancaster, which experience proved was unable to stand the London climate. The architect seems to have purchased the stone himself and made a hard bargain with the quarry owners by which the public benefited.

A letter which was written by Nash when ordering some ironwork for the new palace may be interesting.

It is written to John Wyke Fowler and Co., iron foundry, and is dated 1 July 1825, and shows that no detail was too small for him to supervise.

" SIRS,—I shall want a considerable number of castings for the Palace at Buckingham House, such as iron joists from 16 feet to 38 feet in length, the shortest to be of the dimensions :—
The longest of these dimensions in the middle, and 1 foot 6 inches deep at each end.

" I shall also want some cast-iron arches to strengthen stones of large bearing thus, the iron 1 inch thick and 4 inches broad, with inch screw bolts, nuts and heads.

" Will you let me know at what price per ton you will furnish such castings of best iron, cleaned and fitted, and deliver ready for fixing, the joists to be previously tried to ascertain the sufficiency of their strength. Your answer is required immediately.— I am, Sirs, your humble servant,

" JOHN NASH."

Asked by the Committee what responsible person had control over the plans, the architect replied : " Those designs that I make are made under the direction of His Majesty, approved by His Majesty, signed by His Majesty, and countersigned by the Minister. I can produce some of these to the Committee." Question : " What difference is there in practice between your control of Buckingham House and Mr. Soane's at the Courts of Law or any other public buildings ? " Answer : " I have nothing to do with any public buildings but the palaces."

There were many difficulties in turning Buckingham House into a Palace suitable for the King, and Nash had to contend with the vigilant authorities of the Board of Works, and was often brought into collision with them. At one time the King requested Sir Jeffrey Wyattville to examine and report on Buckingham House, which was then nearly completed. On this, Wyattville, to his great credit, wrote to the Keeper of the Privy Purse, requesting him to state to the King that though he felt flattered by His Majesty's commands, he must decline to interfere, as long as there was any chance of the difficulties with the Commissioners being removed.

The Palace was re-fronted some few years since from the designs of Sir Aston Webb, P.R.A., K.C.B., and forms a fine feature from St. James's Park.

IV.

VARIOUS WORKS.

Several country houses were designed and erected by Nash in Wales, Shropshire and Herefordshire and other parts of England in what is called the castellated style, including his own house in the Isle of Wight, named East Cowes Castle. In altering Corsham House, Wiltshire, he expended a large sum of money, about £80,000, and made great changes in the fine old man-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

sion, but unfortunately not always in the best taste. H. Repton, whose son, John Adey Repton, was acting as an assistant to the architect at the time, claims the design for the work of his son.

Britton says "that nearly contemporary with this building were those alterations to that monstrous building at Brighton, the Prince's Pavilion erected from the designs of Mr. Porden and Mr. Nash (the original architect was Holland). Fortunately for English art and artists, this pattern card of royal folly and reckless expense did not become fashionable; it failed to please even those who are generally too ready and eager to follow the worst examples of princes." The revels and orgies which took place in the Pavilion during the reign of the Prince Regent are well described in *The Four Georges*, by Thackeray.

However, with all the eccentricity of this design, there is a good deal of interesting detail which could only have been acquired by a careful study of Oriental examples.

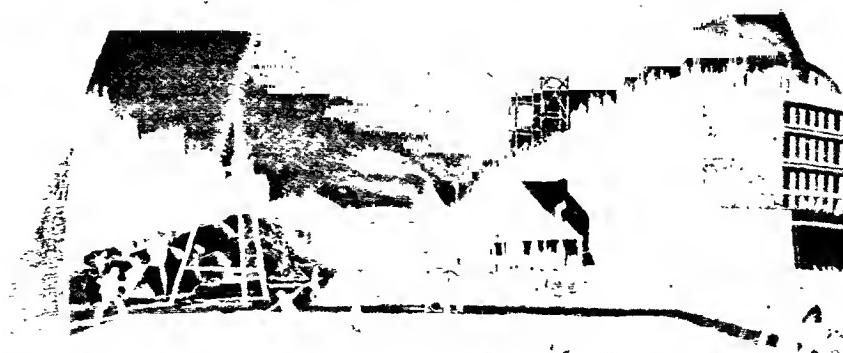
Elaborate preparations for the grand jubilee, 1 August 1814, in connection with the general peace, were made in the London parks; and in the Green Park, at the suggestion of Sir William Congreve, Nash designed a temple of Concord. He acted as Surveyor-General by command of the Prince Regent during the vacancy caused by the death of James Wyatt. The building designed by him and erected in the garden of Carlton House as a reception room for royal visitors on the occasion of the visit of the allied Sovereigns by the Prince Regent had twenty-four sides, being 120 feet in diameter, with a remarkable room, and it was afterwards

erected at Woolwich, and serves as a depository or museum for naval and military models.

The pay of the working man in those days bore no proportion to that of the present day. In 1770 the wages for a bricklayer was ten shillings and ninepence a week. The brothers Adam, who were Scotsmen, when building the Adelphi in the Strand, sent to Scotland for workmen, but soon discovered their mistake, as not one in twenty was worth his salt. They had recourse to persuasion, and to keep up the spirits of the men sent to Scotland for a piper. The piper arrived, and the labourers danced, and were willing to do all that their employers desired except to work. So they dismissed the Scots, and employed about half the number of stout Irishmen, who put their backs into the work.

There were many caricatures made of the building of Buckingham Palace, and the great expense of the gardens, which are said to have cost £42,000, roused the indignation of the public. A large mound was formed in the gardens, so that the King could not be seen when he was enjoying himself, and he had the same dread of being seen when he was at Windsor, where the road had to be cleared for his carriage to pass.

That John Nash was a good draughtsman as well as a capable architect is proved by the series of drawings he made of Paris, which were published in Pugin's "Paris and its Environs" in 1831. I have reproduced two of these drawings in my article



J. Nash, delt.

VUE DE LA SEINE

Watkins, sc.

WREN BICENTENARY

Sir Christopher Wren, 1632-1723*

Bicentenary Memorial Volume

BY SIR REGINALD BLOMFIELD, R.A.

This handsome volume, "published under the auspices of the R.I.B.A.," is a notable tribute to the memory of Wren. Mr. Waterhouse in a graceful Latin dedication describes its purpose as one "pietatis erga tam eximum ingenium." "Pietatis ergo" seems more familiar, but that would have omitted the reference to Wren's admirable genius. Memorial volumes are as prone to failure as Coalition Governments, writers can hardly avoid treading on each other's heels, and the result is sometimes closer to the composite photograph than to the clean-cut portrait. But in this case the writers have wisely dealt with special aspects of Wren's actual work, and so have given each other elbow-room; and Mr. Dircks, the editor, who has had to work under very limited conditions of time, and the contributors to this volume, are to be congratulated on the successful discharge of a difficult task. Sir Aston Webb, Mr. Gotch, Mr. Keen, Professor Pite, Mr. Macartney, Mr. Somers Clarke, Mr. Warren, Mr. Turner, Mr. Ward, Professor Richardson, Professor Adshead, Mr. Stratton, Mr. Maurice Webb, all write with expert knowledge of architecture; on what, from the point of view of architecture, one may call the lay aspects of Wren's work and career, Mr. Minns, Mr. Hinks, Sir William Bayliss, and Sir William Schooling have some very interesting things to say, and finally Canon Alexander, who has devoted himself for many years to the conservation of the great Cathedral in his charge, says a few eloquent words of appeal for Wren's great work. "The best memorial of Wren is still the Dome which lifts its misty splendour above the curves of the river, with the Cross shining back to the setting sun." That is so. One may criticise and explain or censure, but there is always that incomparable monument.

Anyone who reads this volume from cover to cover will know pretty well all there is to be known about Wren. It is a good deal more than we know about any other architect, and yet in point of fact it is not very much. We know of his family, of his education, of his brilliant success at Oxford; there are a few letters in Wren's neat, precise handwriting, the not very convincing drawings at All Souls and elsewhere, and the *Parentalia*, written by his grandson, and not always to be relied upon. Any further insight into Wren's work as an artist is only to be gained by the critical study of Wren's actual buildings, and there is a good deal yet

to be explained. Architects do not arrive out of space, their own design is based largely on the work of their predecessors. We all have our heritage of the past, and it is, as in the parable of the Talents, the use that we make of that heritage that determines our ultimate value as artists. We may neglect it entirely, we may be content to rest on our oars, or we may use it as a starting-point for great adventures of our own. Everyone has to make the choice of Hercules, for good or bad. Wren made his, in his quiet, indomitable way. He gathered in knowledge on every hand, he studied (not quite so profoundly as one could have wished) the work of the past and the work of his contemporaries; and with this as his jumping-off point he extended the range of architecture in this country to an almost incredible degree. St. Paul's was designed and half-way up within 50 years of Laudian Gothic, though, it should also be remembered, it was within 50 years of the design of Whitehall.

It is only by the study of Wren's actual buildings that it will be possible to settle certain questions that seem to me to be still open: such as the relation of Wren to his craftsmen, how far he was affected by foreign architecture, French or Dutch for example, the evolution of his design for his churches and more particularly for St. Paul's. The Bi-centenary volume throws some valuable light on these matters, and breaks up fresh ground in two or three directions. Mr. Laurence Turner and Mr. W. H. Ward contribute a very interesting essay on the crafts at St. Paul's, based on the building accounts, which include every detail of its construction and finishings, not omitting the allowance of 15s. a month to Mr. Wm. Spencer for meat for the watchdogs; which reminds one of the entry in the *Comptes des Bâtiments* of Louis XIV, of the payment of twelve francs to the widow Baudoin for the loss of her "beste asine qui a été abîmée dans les travaux de Marly." The writers attribute the excellent craftsmanship largely to Wren's personal influence and direction. I am doubtful of this. My own impression is that though Wren as a constructor was supreme above any other architect, in this matter of the crafts he had a great deal more to learn from his craftsmen than they from him. Wren began as an amateur in architectural technique, and, at any rate throughout the earlier part of his career, he remained so. The enrichments shown in Fig. 4, where entirely different treatments of the acanthus are left side by side in the same band, could never have been passed by a sensitive and accomplished technician. This was in 1696. At Hampton Court

* Sir Christopher Wren Bicentenary Memorial [London: Hodder and Stoughton]. Subscription copies, 5 guineas, 8 guineas, and 25 guineas net. All profits to be allocated to the St. Paul's Restoration Fund.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the treatment of the segmental arches of the groining, stopping short under the semi-circular arches of the arcade of the Fountain Court, is awkward ; and the management of the impost moulds of the piers, in relation to the Ionic pilasters of the Loggia on the garden side, is quite unworkmanlike, and if it were anybody else but Wren, one would say ignorant. Perhaps it was due to Talman. I do not imagine that the prints which Wren brought back from France after his hasty visit in 1666 could have been of much use to him or to anybody else. The brilliant craftsmen of the Louis XIV era were not yet in their stride, and for ornament he must have depended on the earlier engravings of Le Pautre. Figs. 5 and 6 illustrate the carving above niches in the south choir aisle, and in the south nave aisle. The authors point out the discrepancy of treatment between the normal work in the choir, and the free, even licentious manner of Grinling Gibbons in the nave ; but they omit to point out the obvious criticism, that Wren exercised little or no direction over his carvers. I cannot imagine any architect who was sensitive in these matters, and who knew his business as an artist, allowing such licence in a building under his control. The man who really started English craftsmanship on the right lines was Inigo Jones, a great and accomplished artist, full of knowledge ; and though a great advance was made in Wren's time, when men such as Grinling Gibbons and probably stragglers from France appeared upon the scene, there already existed in England a basis of sound native craft, Edward Pierce for example, and one would like to hear more of Jonathan Maine, who carved that splendid truss in the Library. One would like to hear also of any Frenchmen, if there are any mentioned in the accounts. The Revocation of the Edict of Nantes, in 1685, lost France some of the best of her workmen, and some of them certainly came to England. Daniel Marot, whom Des-tailleur considered the best ornamentalist of his time, fled to Holland and entered the service of William of Orange (William III), and it was Marot, and not Lenôtre or Wren, who designed the garden at Hampton Court for William.

The question of Dutch influence on Wren's design is interesting. There can be little doubt that the accession of William of Orange, in 1688, was a determining factor in his domestic design, and Mr. Stratton brings out some convincing evidence that Wren's design was influenced to some extent by contemporary Dutch and Scandinavian architecture. The characteristic façade of the smaller William and Mary house closely resembles the façade of such a building as the gallery at The Hague. That Wren took hints for his steeples from the curious spires of Northern Europe is possible, but I think it more likely that the first suggestion came from English motives, Gothic and Jacobean, translated by the genius of Wren into terms of unparalleled

beauty. His City steeples and St. Paul's are the really epoch-making achievements of Wren's career, and they are absolutely his own. What he borrowed from other sources he repaid a hundredfold.

* "χρόνια χαλκέιων, ἐκατόμβοι ἐννεαβούοντος."

Mr. Gotch has drawn a pleasant picture of Wren on the personal side, but I have a feeling that something is wanting. Somehow the impeccable man of Mr. Gotch's essay, so equable, so well balanced, so free from the infirmities of poor human nature, is just a little disappointing, or shall we say tiresome ? Surely Wren must have broken loose sometimes. There is a wild look in the eyes of the bust by Edward Pierce ; and I fancy the little man with the keen eye, the short firm chin, and the sharp-cut features of Kneller's portrait must have had, somewhere, in him the dæmonic element. Let anyone stand in St. Paul's Churchyard, and cast his eyes up to the Cross soaring upwards to the sky, and he will realise the superb confidence and courage and the magnificent imagination that could conceive and carry through this great monumental idea.

One may criticise Wren's shortcomings as an artist, and it is the duty of those who know, as has been done in this book, to point them out, in order that inferior work may not shelter itself behind a great reputation ; but shortcomings in detail do not seriously affect the essential greatness of Wren's work as an architect, his consummate skill in construction, his inexhaustible invention, his set purpose never to drop below the high level of his ideas. It is a consoling thought that, while the other arts have gone astray after strange gods, architecture remains constant. This book is a proof that architects are still moving on the lines laid down for us by the great reformer who died two hundred years ago.

Review

ESSAYS AND MEMORIALS. By John W. Simpson, Past President R.I.B.A. [The Architectural Press, 27 Tothill Street, S.W.1. 12/6 net.]

In his attractive *Essays and Memorials*, Mr. J. W. Simpson has made an application of that allegory within an allegory, *The House of the Interpreter*, which might have surprised John Bunyan. Yet had he been acquainted with the details of the economy of Versailles in his day he might well have recognised its appositeness. Mr. Simpson has erected for us a new House of the Interpreter with diverse pleasant chambers, in each of which the "courteous reader," after passing through the daintily set-out forecourt with which Major Harry Barnes has prefaced them, will linger with profit and delight. The chambers of a house, however various their aspect, their uses or their decoration, have in

* II vi 236 "Red gold for brass, a hundred steers for nine."

REVIEW

common not merely the four walls that contain them, but the service of the inhabitants. These essays, too, within their pleasant grey cover, have a single purpose in the interpretation of the art of architecture and of points in its history, though their subjects are as various as a Somersetshire war memorial of a hundred years ago, the worries of an aristocratic clerk of works in the *Grand Siècle* and the discussion of architectural principles in engineering.

It is the laudable practice of Presidents of the Institute to deliver periodical addresses during their term of office to the students of the Mistress Art. It may safely be predicated that none of them has given more thought to the preparation of the matter of his addresses or taken more fastidious pains with its literary presentation than our late President. It is well, therefore, that they have been rescued from the limbo of the back files of the JOURNAL for the edification of a wider public and of other generations of eager youth, who will find in them much food for meditation gracefully and persuasively imparted.

Side by side with these are four studies of a historical nature, three of which bear upon one of the great periods of French architecture. Though their subjects may appear to the superficial observer not of the first magnitude, they will be found of great interest for the light they throw upon the interplay of individual characters, economic conditions, politics and the hundred other factors that go to the making or stultifying of great enterprises.

Mr. Simpson is not one of those historians who deal in brilliant improvisations and facile generalisations, which have the glitter and rounded completeness of the soap bubble till they melt into thin air at the touch of fact. Every statement is the result of meticulous research and the careful weighing of evidence and authorities. On the other hand, he is equally removed from the dry-as-dust fraternity; and if no one has delved deeper than he into the musty archives of the City of Paris or the accounts of the Royal Works, no one knows better than he how to reconstruct for our entertainment certain of the little dramas in which architects and marquises, decorators and Ministers of State, nay, the great King himself in his billowy periwig, play their parts not as automata, but as the very human creatures they all were with their great schemes and little vanities, their amours and their axes to grind.

Not the least poignant is the drama of Colbert, that not over-scrupulous, but incredibly industrious, Minister devoted body and soul to the interests of France and her King, as he understood them, who, after all he had succeeded in accomplishing for their greatness in the face of every conceivable obstacle, died broken-hearted and discredited largely by his very efforts to delay the royal extravagance in its progress towards the abyss.

Very entertaining is the tale of the misadventures of

that amiable young scapegrace, D'Ormoy, his seventeen-year-old son, whom he had thrust into the clerkship of works at Versailles—the roundest of pegs into the squarest of holes—with results to be foreseen by any eye not blinded by paternal ambition. The vicissitudes of this false start in life may be followed almost day by day in the letters exchanged between father and son. Colbert exhorts to diligence and attentiveness to the royal orders, gives minute instructions as to every detail of the works to be carried out, the procedure to be adopted with contractors and officials, the supervision of workmen, the employment of time, thunders against his son's shortcomings, threatens curtailment of allowances, foretells disgrace. D'Ormoy promises amendment, and has fits of energy. But, in fact, he was not only without the requisite experience and authority, but had no taste or aptitude for the work. It was much more amusing to "scamper off to Paris," or carry on a flirtation with a Mademoiselle de la Salle, who on one occasion was discovered at Versailles disguised as a man and packed off to a convent by the King, than to spend his days as his father would have him: to rise at 5, or even 4.30, make a two hours' tour of inspection, then work three or four hours in his office, and after dinner and another round of inspection, to spend the evening with the draughtsmen over the plans. The work gets behindhand, and Louis is incensed. Colbert writes: "You pay so little heed to the execution of my orders that I begin to despair of making anything of you." A clerk of works indeed he could not be made by his father, but the King's displeasure did make him a lieutenant in the regiment of Picardy, and there at last he found his vocation, and in time a glorious death.

The longest, and perhaps the most valuable, section of the book is that which unravels the history of the so-called "Plan des Artistes." The legend is magnificent. In the throes of the Terror, amid famine and foreign invasion, the Revolutionary Government gets together a committee of architects, artists and engineers and sets them to work upon a comprehensive scheme for the development and embellishment of the capital. The facts, as we now learn, fell out quite otherwise, and if quite as interesting and in some aspects scarcely less heroic than the legend, so far from reflecting credit on the politicians of the Revolution, they owe such merits as they possess mainly to the initiative of the *ancien régime* and the enterprise of an individual architect bred up in its traditions.

A great scheme of improvement, drawn up by the municipality in the last years of Louis XV for progressive execution, and postponed owing to war, was revived in 1784 by the government of Louis XVI. The indispensable preliminary survey was entrusted to Edme Verniquet, a Burgundian architect, who with an army of assistants did the measuring mostly by night and by torchlight.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The drawing offices, which were in the precincts of the Cordeliers Monastery, and perhaps protected by their nearness to the too famous Cordeliers' Club, carried on their activities undisturbed by the revolutionary hurricane. Not to mention innumerable detail and sectional surveys, these resulted in the production of a great general plan, 70 feet long, mounted on a massive oak table, which has since disappeared, and, in 1795–6, in a splendid atlas of 72 engraved plates, which, when assembled, measure about 16 feet 6 inches by 13 feet. So far from being adequately supported by the Republic in this vast and useful enterprise, Verniquet, who entered upon it with a considerable fortune acquired in practice, died ruined and in debt to his assistants.

His plan has been called the "Plan des Artistes," because artists worked upon it, but it had no connection with a "Commission des Artistes" which on two occasions was appointed by the Convention. Each of these, after a brief flicker, subsided into obscurity without effective action in the direction of town planning. If the Convention had little need of Art for Art's sake, it had urgent need for funds and one means to this end was the exploitation of the confiscated property of the aristocracy and the Church. "The primary object of the Administration" of these *domaines nationaux* "was that of inventory and advantageous sale; and the division . . . into suitable lots, involving"—by a side wind—"a certain amount of street formation," with a view to enhancing the value. Certain plans of this nature prepared by the Public Works Department were pigeonholed as a consequence of the tragedies of 1791, and it was not till 1792 that the Convention reopened the subject by decreeing not a commission for general embellishment, but a competition for piecemeal schemes for developing the national property, in which utility was to be the prime consideration. The first prize of 10,000 livres was awarded to Auguste Cheval Hubert for a plan for improving the approaches to the National Palace (*i.e.*, the Tuileries). We owe to him the hemicycles in the gardens and the placing of the Marly horses at the entrance to the Champs Elysées. For the rest little was done, and that little was, according to a French writer quoted by Mr. Simpson, sometimes inspired by quite other ideals than those one would expect to govern the development of an imperial city. "Here a street was to be cut, there a square laid out, not merely to let in air and life, but with the object of destroying a monument, knocking down a cross, or of making money. Politicians said: 'Drive a road through that mansion, demolish that palace, down with that church. We want no more nobles, we have done with kings, we have given up believing in God.' " The tirade is perhaps a little more sweeping than the facts warrant, for, if some monuments were wantonly torn down, others, like the

Oratoire, were deliberately spared on account of their architectural merit.

If the Commission des Artistes must be denied the glory of producing a comprehensive and co-ordinated—or, indeed, any—scheme of improvements for Paris, it cannot justly be accused of complete ineffectiveness. For it appears to have occupied itself with collecting schemes drawn up by various architects at various times, and more particularly under the Monarchy, for isolated improvements, and to have passed them on to the Public Works Department in whose *dossiers* they slumbered undisturbed until, in view of the Exhibition of 1889, and under the auspices of Adolphe Alphonse, they were unearthed, pieced together, drawn in red over a plan based on that of Verniquet, and published in "*Les Travaux de Paris, 1789–1889*," as the "Plan reconstitué de la Commission dite des Artistes." It is to this posthumous compilation of fragmentary schemes necessarily devoid of any "*idée d'ensemble*" that we owe the legend of the prescient *sans culotte* artists laying down with Olympian calm the lines of the Paris of the future, while the tumbrils laden with the daily ration of fodder for the guillotine rumbled over the cobbles under their windows.

The infinitely patient research brought to bear by Mr. Simpson upon the foundations on which this engaging edifice of legend rest, and which has resulted in its collapse, and the establishment of the real facts, will have the gratitude of all lovers of historical truth.

Space forbids to follow him along the other attractive paths he treads. The readers who do so will have but one complaint, and that is that there are not more of them.

W. H. WARD [F.]

Correspondence

R.I.B.A. ELECTION.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—May I suggest to Mr. Maurice E. Webb that before he attempts to correct other people he should be sure of his facts?

He states that I know perfectly well that the words, the "bringing of all the architects of the United Kingdom into membership of the R.I.B.A.," are taken from a report. But I don't know it; unfortunately, the quotation is much more serious, for it is taken from a resolution passed by the Council of the R.I.B.A. on 23 May 1921. I am well acquainted with what I believe is the only report on the subject; it was made by the Sub-Committee of the Unification Committee and submitted various suggestions for the consideration of the Grand Committee; I have it before me, it is headed: "*Private and Confidential.* (For the information of the members of the Committee only.)" This report was considered by the Grand Committee, and as a result the four well-known resolutions were passed. Whatever views we may have, it is clear that resolutions that give rise to so many arguments must be, and are, very

CORRESPONDENCE

badly worded : but what could you expect from a Committee that advocated unification before registration ? Mr. Webb was a member of the Sub-Committee. The resolutions I refer to were submitted to the Council of the R.I.B.A., and exactly similar resolutions were passed, practically without discussion and in spite of my vigorous protest.

But Mr. Webb and his unification friends must be logical ; if unification is to be defined as admitting only "selected" or "approved" or "properly qualified" men, that would obviously mean the exclusion of certain men, and the result could not be unification. Again, why make any change ? At the present time we admit all those men, the test for being "properly qualified" is compulsory examination.

I ask our Associates to form their own opinion with regard to the result of admitting architects wholesale to the Institute, and I submit to them that it would shatter our examination system. Apparently Mr. Webb and his unification friends think they can throw dust in the eyes of Associates by not calling the new members Associates, but it is *Membership* that counts: the name "Fellow," "Associate," or "Member" does not matter in the eyes of the public.

Mr. Webb complains that the Council did not provide a House List in accordance with our by-laws : here again he is wrong, the Council did so ; but after the full list had been voted, and subsequent to the Council meeting, one Fellow withdrew his name.

Mr. Webb states his friends "are pledged to consult" various societies : that is exactly what the present Council is doing.

SYDNEY PERKS [F.]

LICENTIATES AND THE CHARTER AND BY-LAWS.

10 May 1923.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—In your issue of 14 April last Members and Licentiates were particularly requested to read the notice on page 356 calling th' special meeting for Monday, 30 April, at 8 p.m.

Having read the notice with some interest, I, with other Licentiates, attended the meeting, which started with the usual question addressed to the chairman as to whether the Licentiates were entitled to be present. The chairman replied in the usual manner that Licentiates were entitled to be present and to speak but not to vote.

When Mr. Perks put the first resolution to the meeting I asked the chairman if I was right in assuming that the right to speak carried with it the right to propose amendments or resolutions, but was informed by the chairman that it did not, and therefore the other Licentiates present and I retired from the meeting, as we did not feel at all inclined to remain after the ruling from the chair.

This being the case, I addressed the enclosed letter to the Secretary on the 2nd instant, which sufficiently explains itself.

I do not wish to trespass unduly upon the space of your columns at the present moment, but I shall be obliged if you will publish this letter, in order that Licentiates and others may be in possession of the fact that we were present at the General Meeting on 30 April last with the intention of bringing forward proposals which would give the

Licentiates the same voting power as Fellows—a power which the Council's recommendation confined to Associates.

Our proposals would also make it unnecessary to issue such notices as that on page 400 of your issue of 28 April last with regard to the Licentiates' form of declaration.—Faithfully yours.

JOHN E. YERBURY [*Licentiate R.I.B.A.*].

3, Queen Street, Cheapside,
London, E.C.2.

[Enclosure] 2 May 1923.

DEAR MR. MACALISTER,—Having been prevented by the ruling of the Chairman on Monday night last from moving either resolutions or amendments, I enclose the proposals which I wished to bring forward, hoping that there may be someone on the Council who will take them up. Unless Licentiates are given the vote, the Institute will in my opinion, lose a large number of its members.

I can understand the desire of those men who have entered as Associates by examination wishing to retain the mark of that distinction, but I cannot understand how anyone can wish to deprive others of a voice in the direction of affairs.

In the twentieth century, in a democratic country, in a Society which wishes to be considered "a learned Society," and therefore enlightened, it seems to me impossible to maintain such an attitude and, at the same time, retain its members.—Sincerely yours,

(Sgd.) JOHN E. YERBURY.

Suggestion 1 (Page 357, THE JOURNAL).—Add to line 4 "and Licentiates" after Associates.

Suggestion 5b.—Delete the words "over 60 years of age and." *Supplementa, Charter 1909.*—Line 21, delete the letters "i c e n t i a t e."

Supplemental Charter 1909.—Line 22, delete the word "not." *Supplemental Charter 1909.*—Line 23 to line 31, delete all words after "Institute" in line 23 down to the word "shall" in line 31.

Form of Declaration.—Delete all words after "Institute" in line 20.

R.I.B.A. ACADEMIC DRESS.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I have read with interest and approval a letter in the JOURNAL of the 28 April upon the subject of the proposed academic dress. I did not join in the discussion at the Institute on 30 April, as the voice of a Licentiate is as that of one bleating in the wilderness. But had I voiced my sentiments I could have pointed out that the origin of badges and distinctive dresses, as in the case of heraldry, had an admirable, indeed necessary, significance. The significance, however, of centuries long past is no more existent, except for public services, such as the Navy and Army.

That the resolution for adopting an academic dress should be moved by Mr. Riley is worth noting, for he was connected for a long period with a Council which has shown a sensible disregard for aping fashions now out of date.

One would be sorry for the old Corporation of the City of London—or for any other old institution—to discontinue ancient customs and habits. But it is always a mistake to put new wine into old bottles. Moreover, a profession, one of whose professions is a dislike to copy old fashions, should act consistently.—Faithfully yours,

PERCY L. MARKS [*Licentiate R.I.B.A.*].

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Your correspondents, Messrs. Healey, Grice and Steadman, ask when the proposed costume would, if adopted, be donned.

May I endeavour to give them my personal answer to their question in this way. As an exceedingly lowly Licentiate, working in a provincial town, I do not suppose that, assuming the academic dress is adopted, I should ever personally have occasion to wear it or even to possess it. Yet I welcome the idea most heartily!

My reasons for this apparent paradox may best be explained by an incident of which I was witness the other day. I was travelling by train from our great shopping town, and found myself in the company of a small group of friends and acquaintances, members of the Diocesan Corps of Lay Readers. After stopping at several wayside stations, only a few, and they, with one exception I believe, officials of the Corps, remained. Naturally they discussed the business of their organisation, the subject of the moment being whether a local member of the R.I.B.A. should be admitted to the higher, or Diocesan, or lower, or Parochial grade. The point was : The higher grade is, in practice, confined to professional men. Was a provincial architect to be classed with professional or trades people ? Someone said, "He has some letters after his name, I know." "Yes," said the Warden, "but what do they stand for ? Do they carry a hood ?"

Now, here is the whole case in a nutshell. It is a generally recognised thing that all professional and scholastic qualifications confer academic dress ; and by this the outsider, knowing nothing of the particular profession under review, judges and will continue to judge of the status of the professional society or examining body. In other words, he will recognise the Institute as an academic body and not as a trade union when it falls into line with other academic bodies in this, as in other ways. That we may consider his attitude illogical or even silly does not affect the case.

A MERE LICENTIATE.

The City Churches

MACHINERY FRAMED FOR REMOVAL.

Sir Banister Fletcher contributed the following letter to *The Times* on May 17 :—

SIR,—The Metropolitan Churches Committee appointed by the National Assembly of the Church of England have presented their report, and the Measure has been drafted "to facilitate the Union of Benefices and the Disposal of Churches within the Metropolis," which is proposed to be passed by the said Church Assembly. But this is more than a Church matter ; it is a citizens' and a national matter ; as such it should receive the critical and analytical attention of all those interested in preserving the right of vestries and parishioners, as well as of those who are concerned to preserve inviolate the City churches of London. We are not here concerned about benefices, but about churches.

The Committee state that they were "not to inquire into the merits of the controversy about . . . the City churches or the question of the removal of some of them." That sounds reassuring until we read that they were "to

frame machinery by which . . . churches might be removed under proper safeguards." This presupposes that, if not now, when controversy is hot, then at some future time the churches shall be "removed." When the machinery is once in existence the act of removal might take place, as it were, stealthily by night. The Measure is to provide machinery by which the "removal . . . may be wisely decided" by a "Metropolitan Benefices Board," and the veto of vestries and patrons on schemes to remove churches is to be abolished. But who is to be the arbiter of wisdom ? Why replace an ancient, popular right by a modern artificial privilege ? We say, too, that the removal of the churches would not only not be wise, but also improper and sacrilegious. This new Board is to be representative of Churchmen generally and of "such State authorities and experts in art as it seems proper to consult." Who is to decide on the propriety of consultation ?

Then, again, the present area in which churches might be removed under this Measure is limited to the City ; but there is no geographical limit as to where the money so raised might be spent. This in itself suggests that the removal of so-called superfluous churches may at any time extend beyond the City into the country. If it is admitted that churches may be removed when the population they once served has left them, then what might be the fate of the magnificent East Anglian churches in now sparsely populated districts ?

It is, however, the Sunday population that is always referred to when it is proposed to remove City Churches, but is there anywhere in the world, outside the City, where there is a week-day population of a quarter of a million which such churches might well serve, and should any religious body regard slightly such an opportunity of service to the spiritual needs of a commercial community daily brought to the very doors of these churches ?

I omit any detailed reference to the wider or *quasi*-religious uses to which these churches might be put, or even to the great benefit they confer by their open spaces in a closely-built business city. It is significant that the Corporation of the City of London, composed of hard-headed business citizens, has definitely pledged itself to resist to the utmost the removal of any single City church.

Then there is the constitution of the board of thirty-six persons, half of whom (*i.e.*, eighteen) are to be nominees of the three Metropolitan dioceses, four of the Church Assembly, four of the Archbishop of Canterbury, and two of the Ecclesiastical Commissioners—*i.e.*, twenty-eight are to represent the Church and eight other bodies. What are eight against twenty-eight ? Is this an adequate representation of the general English public ? The whole Measure is heavily weighted against the rights of the citizens or the nation.

Other points might be taken, but the foregoing indicate the spirit of disregard of public opinion in which this Measure is framed. Ecclesiastical authorities in financial straits look with envious eyes upon this Naboth's Vineyard of the City churches of London. London citizens must now realise that the price of their inheritance is eternal vigilance. Precedent, too, if once established through the City churches, is a powerful argument for further predatory action, and our City fight for our churches is the nation's fight for its churches all over the country.

DISCUSSION OF THE ANNUAL REPORT

Discussion of the Annual Report of the Council

AT THE ANNUAL GENERAL MEETING, 7 MAY 1923.

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR.

The adoption of the Report having formally been moved by the President, was seconded by Mr. ARTHUR KEEN.

Mr. WM. WOODWARD [F.] : Mr. President and gentlemen, this is the twenty-eighth year in succession that I have had the pleasure of saying a few words on the Annual Report of the Council.

On a cursory review of the Report, Mr. President, I have derived the impression that we are rather merging on dilettantism in some respects, that we are somewhat losing the substance for the shadow. For example, we have nineteen Boards and Committees, some of them, no doubt, closely appertaining to the work of this Institute ; others, I think, not so much. For example, on page 363, the Metropolitan Water Board ; we may have something to do with the work of that Board, but I do not quite know what it is. I should be one of the first to intervene in regard to the preservation of Ken Wood. Then we have the British Engineering Standards Association ; I do not know what we have to do with that. But, above all, we have this announcement : "Sub-committee on Cast Iron Half-round, O.G., and other Moulded Gutters." You may think that is a subject of great importance to the Royal Institute of British Architects. And you have the National Association for the Prevention of Tuberculosis. Of course, we are all in favour of the prevention of tuberculosis, but I do not know that it so much concerns the Institute as it concerns the Middlesex Hospital. Whenever I see the word "research," or the words "ferro-concrete," I always think of that blessed word "Mesopotamia." If you can only bring the word "research" into a sub-committee of this Institute you have gone a long way to convey feelings of great esteem for its work.

Now we come to the obituary. I am very sorry, Mr. President, that we have, year by year, to lament the loss of our friends. There is one name the Honorary Secretary read out to-night, Mr. Purchase ; we are very sorry to have lost him since the publication of this Report. And there is Mr. Reid, and there is Mr. Roe, one of the few to whom the Associates owe their vote ; and Mr. Satchell, who did excellent work on the Practice Committee. And there is Mr. J. Douglass Mathews. We deeply regret the loss of these gentlemen. And in addition there is my dear old friend, not so well known, perhaps, Arthur Webb, one of the kindest hearted, most artistic of men. The membership is now about 4,844, and last year it was 4,810. There is a total membership in the Allied Societies of 4,133, a most excellent number. And 1,615 is the membership of the Architectural Association ; this is also very satisfactory.

As regards the Sessional papers, mentioned on page 363, there is an omission of the paper by Mr. Hurst Seager on the lighting of picture galleries ; I do not know whether there is a reason for the omission or whether it is a mistake.*

On page 365 there is a reference to the R.I.B.A. premises. Our good friend the Hon. Secretary has prepared plans for these additions and alterations, and I do trust that in these alterations we shall have some provision for better lavatory accommodation, and that it will not be possible to block up the lavatory with a cloak-room. If it is not being too inquisitive, I would like to know what is to be the cost of the alterations. Perhaps Mr. Keen will tell us later.

Page 366 : conditions of contract. I have myself been engaged on the conditions of contract for years and years ; I was on a sub-committee dealing with this question forty or fifty years

ago, and the conditions of contract are still with us. When will you finish with them ? Then there is the question of Charing Cross Bridge. We must bear in mind the great mistake the French made in placing the Gare de Lyons on the other side of the Seine. It will be a mistake to transfer to the other side of the Thames what we have on this side. You can make the bridge as handsome as you like, but you must not disturb the traffic. Next we come to the Board of Architectural Education. There is this paragraph, which is excellent, and I think Mr. Slater did take some little notice of what I said—the only time, I think, that any notice has been taken of what I have said in this room ! "Students whose work has been rejected are now furnished with a general criticism of their designs on application to the Board." That is a most excellent idea. A student sends in work, and it is rejected ; he does not know why, and he sends in again ; but a student will now be able to have pointed out to him where the defects in his designs are.

We see, on page 373, that the number of readers in the Reference Library this year was 8,156, and I think that shows the great value of this library. The books issued on loan last year were 3,754, this year 3,708. On page 374, the Practice Standing Committee ; I am very glad to see this about the Home Office Regulations for Buildings. Any idea of a Government Department interfering, or putting their foot, or the thin end of the wedge, into anything with which I am connected is like holding a red rag to a bull. On page 375 is the Report of the Science Standing Committee, and it deals with the question of architectural acoustics. We have been reading leading articles in *The Times*, *Morning Post*, and other journals, about acoustics. If I were to tell you I know all about acoustics, you would say "What does he know about anything ?" Well, this is what I was taught in my youth. Let me give you the materials, in order of preference, for good acoustics. Omitting all domes : (1) wood, (2) plaster, (3) brick, (4) stone, (5) marble. We who have to speak in public places know that marble is fatal for acoustics, and the reason of acoustic difficulties in buildings is that architects will not consider the order in which building materials convey sound. On page 376 there is another capital announcement, as to Home Office Regulations in regard to buildings in course of construction, etc. The Committee, very properly, want the Home Office to define exactly the class of building, and that is another recognition of the attempt to drive in the wedge. (Mr. BURROWS : That refers to the same set of Regulations as you mentioned before.) Very well, my observations also apply. Then, on the same page, there is mentioned the question of "silicosis" among stone-masons. I do not know what that is, but it seems to be a terrible complaint. Perhaps some gentleman will get up later and explain it all. On page 377 I come to my friend Mr. Alan Munby, who has prepared a very long Interim Report, and I want to read this, for the benefit of the meeting, and particularly for the benefit of my friend Mr. Munby : "Mr. Alan E. Munby, as Chairman of this Committee, has presented a long Interim Report, prepared by Mr. Vernon, who is the Committee's full-time research investigator. Plates of brass, copper and other metals have been exposed to various atmospheres in different conditions as to surface finish, and the corrosion estimated by weighing and loss in reflecting power. The research is proceeding and will take some years to complete, and the publication of the results in detail is a matter for the main Association and the Department, but it is hoped shortly to send to the Press a brief *résumé* of what has been so far achieved. Investigation has already indicated that very slight differences in composition have a marked effect upon corrosive action." Well, is not that a magnificent

* The paper to which Mr. Woodward refers was not a Sessional Paper. The meeting was convened to discuss a paper which Mr. Hurst Seager contributed to THE JOURNAL on 13 January 1923.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

and exhilarating paragraph ! And a few years hence we shall know all about it ! The Report of the Competitions Committee, on the next page, is a very good one. And in regard to the Report of the Town Planning Committee, I admire one item in that, and that is the paragraph referring to London squares ; and those of us who know Mornington Crescent and its jeopardy in conjunction with Harrington Square will admire this paragraph.

With regard to finance, I think the position is satisfactorily summed up on page 384. The surplus last year was £375 ; this year it is £1,173. Last year the total income was £21,607 ; this year it is £23,372. And the Report of the Hon. Auditors, Mr. Hudson and Mr. Sheppard, for which we thank them, is a very good one. I was an Auditor myself, before the accounts were so long and so important as they are now, and I remember the amount of work involved in dealing with these accounts. And I am glad to see the Auditors praise the work of the staff, who gave them every assistance.

There is one point I would like to bring forward, and that is I would like a fund to be raised to protect young architects, who are sometimes badly treated by clients because they have not the money to fight a legitimate case ; it would be a good means of helping young men to maintain their rights.

There are just two other subjects I wish to refer to before I conclude : the relation of the Office of Works to architects and architecture, and the Staff and our President. In referring to the first of these subjects, let it be distinctly understood, in what I am about to say, that I do not know one single architect in H.M. Office of Works. So that, whatever I have to say, it is not personal. I am simply dealing with a bureaucratic Department which has had, and may in the future have, a considerable influence on architects and architecture. Let me mention a few items. I know I shall probably fall foul of some of you in my remarks about the roof of Westminster Hall. We agree that it is one of the finest examples of carpentry extant, if not *the* finest. My opinion is that if the repair and reinstatement of that roof had been left to skilled carpenters and architects skilled in carpentry we should never have had the introduction of the steel girders, which I regard as entirely unnecessary and out of character with the roof. The work will cost an immense sum, and, altogether, I think it is very regrettable. I am not particularly concerned with the cost, though I daresay it will run into £150,000—the Office of Works say £100,000, but we know what that means. Then take our ruined abbeys and other important buildings affecting architects. We know that under the Ancient Monuments Act, 1913, abbeys and other similar buildings have been handed over to the care of His Majesty's Office of Works. Here are a few of the structures which, since 1913, ought to have been in the hands of independent architects, for bureaucratic bodies have none of the religious feeling for our abbeys which is possessed by independent architects : Norham Castle ; White Castle, Monmouthshire ; Spofforth Castle, Yorkshire ; Ewloe Castle, Flintshire ; Warkworth Castle, Northumberland ; Hunley Castle, Aberdeenshire ; Inchcolm Priory, Fife ; Netley Abbey, Hampshire ; Furness Abbey, Lancashire ; and Grosmont Castle, Monmouthshire. I have been to two of these, Netley and Tintern, and I have taken the trouble to write to the Press about them. Take Tintern and the introduction of steel work, with iron ties. At Tintern, when wall ties were found to be necessary, copper ties were used, and a few months afterwards, when I was there, iron ties were used. And when I inquired, "Why are you not using copper ties ?" I was told "Economy." I daresay the difference in the cost between iron ties and copper ties would not be £150, and yet the Office of Works, spending millions in other directions, have put Tintern to the risk of immediate rust for the sake of £150. At Netley, one of the most beautiful ivy-covered, rose-coloured ruins in the world, they have been at work seven years, and what they will do there I do not know. They have already spent £20,000 to £30,000 on Tintern Abbey, and how much longer they will

be there, or how much they will spend, I do not know. In my opinion the Institute should have exercised the great power it has to put a stop to this. An example which is on a different plane is Hexham Abbey. Probably you saw a paragraph in *The Times* and in the *Morning Post*, asking for subscriptions for the restoration of Hexham Abbey. They said, "We have employed, or are consulting, eminent architects in ecclesiastical work, and we are about to do the work of restoration, for which we ask subscriptions." I wrote saying I was glad they were employing independent architects, and added, "May I inquire whether or not you are proposing to use steelwork or iron ties in this work?" I added, "If you are not, I shall be very pleased to subscribe." I had a very nice letter from the Treasurer to say, "No steel work of any sort or kind will be employed in the Hexham work, and no iron ties." Therefore I had pleasure in sending my cheque. There was no need of steel-work in any of the other abbeys, either. There are one or two other things in which the Royal Institute might have interfered, and in which the Society for the Protection of Ancient Buildings and the Royal Academy might have intervened. Take for example the Houses of Parliament ; they have been allowed to decay, and they have been patched up by the Office of Works ; scaffolding has been up at Victoria Tower for months, rotting away, and now it has been taken down again. Surely this Institute could have intervened there, and used its great and increasing power? Why could they not have said, "Let us get on with the repair of this magnificent structure"? Then Trafalgar Square : what does the Royal Institute care about Trafalgar Square? They like the asphalted pavement and the two squirts! You should not have allowed a bureaucratic Department to get hold of your abbeys or to have control of these important buildings. The Office of Works was only created to have the control and upkeep of our public Palaces : look at what it is doing now!

I come now to what is the most pleasant part of my little address. First of all, in regard to the Staff. The Staff of the Royal Institute totals twenty, and we know—particularly architects—that a great deal of our success is due to our employees. It is so in the case of this Royal Institute. The word "co-ordination" is a magnificent word, used in its right place, and it applies here. Mr. MacAlister has been with us over fifteen years, Mr. Dircks has been with us thirty and a-half years, Mr. Baker has been with us twenty-two and a-half years, Mr. Spragg has been here nine and a-half years. I should have liked to mention them all, but I am afraid I have already exhausted your patience. Still, there is one more I would like to speak of, Miss Davies, who has been with us sixteen and a-half years. The satisfactory condition of the Royal Institute is largely due to its Staff ; they all work harmoniously, and I challenge anyone to say, if they come into the Institute and ask a question, that they do not get not only an answer to their question, but it is courteously, politely answered. There is an idea of pensions. The Surveyors' Institution have passed an Order affecting the future happy lives of those who for many years had helped in the work of that Institution, and I understand we have a similar desire—I think Mr. Seales-Wood will bear me out in this—and a scheme has been drawn up by the Finance and House Committee, on the general idea that retirement should take place at sixty-five. I can give ten years to them, and I can do a little work now when necessary. Some are old at sixty-five, some are young at sixty-five. With dear old Tayler and Northover I am sure the Council dealt well and fairly, and have made the rest of their lives happy and comfortable financially. We have instituted policies providing pensions of £100 a year for all members of the Staff on reaching the age of sixty-five years. The Committee feel, and I am sure you will agree, that this should be supplemented by every means in our power. And I must not forget our Assistant-Secretary, Mr. Evans, who, I am sure, proves a worthy assistant to Mr. MacAlister.

And, lastly, may I say this ? I have seen and heard every

DISCUSSION OF THE ANNUAL REPORT

President of the Royal Institute of British Architects whose portrait hangs on these walls, with one exception (Earl de Grey) though of some I only heard and saw a little. One little incident occurred in connection with the father of our present President, Mr. Paul Waterhouse, when he also was President. There was a competition, and the award of the Assessor, to my mind, although I took no part in the competition, was not quite fair, because the successful competitor had exceeded the area of land described on the plan. Alfred Waterhouse, who was then President, and to whom I complained, invited the Assessor (Professor Roger Smith) and myself to his room, and we talked the matter over, I explaining my reasons for objecting to the award. The Professor entered into an explanation; there was a little difficulty in the plan, and he went into it thoroughly, and I came away from that meeting thoroughly satisfied. I wish now to add that those who have known our President, Mr. Paul Waterhouse, will agree that there has been no President who has more strenuously devoted his time and intellect to the affairs of the Council and to the welfare of the whole Institute. He will leave the chair with the sincere affection of not only every member of the Royal Institute, but of every living architect, and with very best wishes for his future health and prosperity.

The PRESIDENT : I feel that, though the meeting is open for the discussion of the Report, I can hardly sit longer without saying a word or two about certain remarks which have just fallen from Mr. Woodward. I was asked to attend another meeting to-night, of a different character, but I explained that I thought my duty, as well as my pleasure, called me here. Still, if I had known or had had any idea of the kind of things Mr. Woodward was going to say about me, I should have gone to the Academy Club Dinner. Mr. Woodward, I thank you very much for what you have said. You know how much you have pulled the long bow, but still, there must have been some grains of kindly feeling beneath it. We have known each other a long time, and we can each make the necessary allowances.

There is one other thing which Mr. Woodward said, and this I would like to re-echo ; it was about the Staff. There is nobody in this Institute at any time who has a better knowledge of what the Staff is about, and what is their worth, than the President for the time being. Mr. Woodward has made a statement about the long service of some of our friends in the office, and those facts are even more remarkable than they seem at first. It is common for those who are servants of one master to remain long in the service and the affection of that master ; but when you consider that here our Staff, from Mr. MacAlister downwards, have to serve and help, not one beloved master, but a succession of floating persons who come and go, it is really marvellous that the devotion of the Staff is what it is. That the devotion must be paid to that body corporate known as the Institute is more remarkable than affection for a single master. I have had many astonishing surprises during my year of office, and of all those surprises nothing has been more pleasant than the extreme pleasure I have had in my intercourse with the Staff, and the ready response they have given, not only to one's affection, but to one's tiresome ways in demanding service from them.

Mr. ARTHUR KEEN (*Hon. Secretary*) : There is a number of points on which I would have liked to follow Mr. Woodward in his remarks, but I shall refrain from doing so. Still, on two matters I would like to add a word to what he has said. First, I endorse with the greatest sincerity all that he has said about the President. When we elected him, nearly two years ago, he said we must not expect him to devote as much time as his predecessor did to the duties of the office. As a matter of fact, he has made it nearly a whole-time job ; he has not spared himself, and he has shown, to my mind, the most extraordinary grasp of all the affairs which came before his notice, and he has conducted all our business with such courtesy, consideration and tact as to endear him to every one of us, and we shall miss

him from the moment he goes out of the chair. I think we owe a very profound debt of gratitude to him for all the services he has rendered us in the office of President.

And as regards the Staff of the Institute, I endorse in the same cordial way everything Mr. Woodward said about them. John Ruskin estimated the respectability of people generally, first by the length of time they occupied their houses, and secondly by the length of time they retained their servants, and this constitutes a compliment to the Institute. We have had some interesting statistics as to the length of time during which the officers of the Institute have served us, and I should like, as far as I am able, to bear my testimony to the excellence of the services which have been rendered by all the members of our Staff. They, again, have not spared themselves in any way. I have never had the smallest difficulty in getting complete and careful attention to any matter. I wanted information upon from them ; and, from Mr. MacAlister to the youngest recruit, they have served the Institute absolutely to the best of their ability, which is saying a very great deal, in all cases.

Mr. Woodward asks for information from me on one or two items. This matter of the Institute premises and the alterations which are projected : we have acquired, on the other side of this wall, a piece of open ground, and we are going to alter this room so as to have a good square room of the width of our plot of ground plus the width of the Maddox Street corridor. And we are throwing this end of this room into the East gallery behind us, to get a good Council room, and other things. We are taking into account, also, the question of lavatory accommodation. We have some space in the basement ; it is not very high, but we can make a considerable addition to our lavatory accommodation, and we shall carry that out in the proper way. With regard to the cost of this matter, I have never yet met an architect who could tell you at the outset what the total cost would be ; but the general contractor's contract will be something under £7,000, though that does not take into account the extension of the heating and ventilating arrangements ; I have not quite settled this, but I have had one or two schemes. However, it will be in the neighbourhood of £7,000. And when it is done I think it will be money well spent, and we shall have the satisfaction of meeting in a room which will be as good as the old Library, and a good deal larger than that. I think that is all the information Mr. Woodward asked from me.

Mr. WOODWARD : That gives me the opportunity of saying I regret very much I omitted to mention our friend Mr. Keen, the Hon. Secretary. I am very glad to hear the warm reception of the mention of his name, and I hope he will excuse my forgetfulness.

The PRESIDENT : Do any other members wish to say anything on the subject ?

Mr. H. W. BURROWS [4.] : Mr. Woodward very properly analysed this Report, and in connection with it he used the word *dilettanti*. On page 363 my name is given as representing the Institute at the Metropolitan Water Board Enquiry. It was not an altruistic conference. The other architect, who represented the Sanitary Institute, was Sir Henry Tanner. When you deal with the form and shapes of pipes and valves, and their weight, the amount of water to be consumed, how it shall be distributed, and the sort of closet and lavatory you shall have, you will find the questions are not altruistic, but they affect architects and the public purse in a distinct way. The officers of the Metropolitan Water Board received us very courteously ; they had sent us the proposed new Draft Regulations, which we discussed in considerable detail. Very careful shorthand notes were taken of all the observations made by manufacturers, engineers and contractors, and by representatives of other Water Boards throughout the country.

I do not think the question of acoustics, again, is a very altruistic subject. About thirty years ago I wrote a paper for the Science Committee. That paper took me about two years to write, and I read most of what had been then written on the

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

subject of acoustics. I found there was almost hopeless confusion on the subject even among scientific men, and the confusion has persisted to the present moment, notwithstanding the magnificent work of the late Professor Sabine in America, whose work is being continued by his son. As a Science Committee we have taken a great deal of trouble in the matter. We have had the advantage of Mr. Hope Bagenal's work, and he, on the President's nomination, will be on the Committee in future. He has done excellent work, and already has had the pluck to publish what he thinks. Mr. Woodward rather jibes at research; I do not know why. I do not think we can move forward much unless we have research; it is the basis of all advance in science. Mr. Woodward apparently considers that we ourselves selected the subjects for research. The question of silicosis was not of our seeking; it was brought before us by the Home Office. The dust from certain material, like limestone and sandstone, has a very bad effect on the men who work it. There has been careful medical research in the matter, and the report was handed by the Institute Council to the Science Committee to make observations on it. We do not agree with all they say, and we have said so. If there is a public enquiry it is promised that the Institute shall be represented on it, so we shall have full powers to place our considered views on the subject before the Home Office on behalf of the Institute. So, in regard to several other things, we have had to do it, for we cannot say to a public authority, "We do not agree with your research," we must, in any subject which affects architects, carefully examine it.

May I congratulate Mr. Woodward on this, his twenty-eighth, year of speaking on the Annual Reports? He is always most genial; we do not always believe all he says, and we know he often has his tongue in his cheek when he is passing his criticisms; but if there is anybody who takes an interest in the Institute, and a pleasure in its work, he is William Woodward. One of the hardest-working men on the Science Committee is William Woodward's son; he is very keen on research, so his father has not brought him up as he ought to have done. You can tell him, Mr. Woodward, from me, that I am ashamed of his father!

Mr. MAURICE B. ADAMS [F.] : There is one little remark I would like to make. The Institute has taken an interest in the prevention of the waste of water. I have always regretted the existence of the Water Board entirely; it has been expensive to the consumer since the old water companies were abolished. The Water Board make you pay the utmost, and apparently they supply the least they can.

The PRESIDENT : I shall now put the Report, and I add my congratulations to those of Mr. Burrows to Mr. Woodward on his continued, successful reappearance as critic of the Council's Report. I remember the days when Mr. Woodward's attack was looked upon with something like fear. That is so no longer, and if anyone wants testimony as to the way he is regarded, let them reflect that at the age of seventy-five Mr. Woodward is still willing.

The Report was carried.

PRESIDENT : The list of attendances at the Council and Standing Committee meetings has been laid on the table and will be printed in the next issue of the JOURNAL.

PRESIDENT : I beg to move that a hearty vote of thanks be accorded to Mr. John Hudson [F.] and Mr. A. W. Sheppard [A.] for their services as Hon. Auditors for the past year.

PRESIDENT : Mr. R. Stephen Ayling [F.] and Mr. C. E. Hutchinson [A.] are both eligible and willing to be nominated as Hon. Auditors for the current year, and if it is your pleasure I beg to move that these gentlemen be so nominated.

Agreed to.

HON. SECRETARY : The next Ordinary General Meeting will be held on Monday, 28 May, at 8 p.m., when Mr. Delissa Joseph [F.] will read a paper on "Building Heights and Ancient Lights."

I am also asked to remind Members and Licentiates that the Annual Conference will be held in Edinburgh, 13-16 June, and all who intend to take part are asked to notify the Secretary as early as possible in order to facilitate the arrangements that are now being made.

British Architects' Conference

EDINBURGH, JUNE 13-16, 1923.

The programme of the Conference is as follows :—

HEADQUARTERS.

The headquarters of the Conference will be at 15, Rutland Square, Edinburgh, the new home of the Incorporation of Architects in Scotland.

DAY OF ARRIVAL, WEDNESDAY, 13 JUNE.

Members will assemble in Edinburgh.

At 8 p.m. they will be entertained by the Incorporation of Architects in Scotland at a Smoking Concert at 15, Rutland Square.

THURSDAY, 14 JUNE.

At 10.15 a.m. the Conference will be accorded an official welcome by the Lord Provost and Magistrates of Edinburgh in the Council Chamber, and thereafter the meeting of the Conference will be continued there, when several papers will be read and discussed.

At 1 p.m. there will be luncheon which will be served in the Castle, if permission is obtained (ticket 4s.), following which a photograph will be taken of Members attending the Conference.

At 2.15 p.m. there will be a motor-drive to Holyrood Palace and other places of interest in Edinburgh (ticket 2s. 6d.).

From 4.30 to 6 p.m. an "At Home" will be held in the National Gallery, where tea will be provided and members will have an opportunity of inspecting the exceptionally interesting collection of paintings there.

At 8 p.m. the Lord Provost will hold a reception at the City Chambers.

FRIDAY, 15 JUNE.

The day will be devoted to a motor char-a-banc tour to Dryburgh, Melrose, and Peebles, starting at 9.15 a.m. from 15, Rutland Square, and returning to Edinburgh at 6 p.m. The cost of the tour, including luncheon at Melrose and tea at Peebles, will be 17s. 6d.

At 7.30 p.m. the Conference Banquet will take place at the Freemasons' Hall. (Tickets, exclusive of wine and cigars, 15s.; inclusive of wine and cigars, £2).

SATURDAY, 16 JUNE.

The day will be devoted to visits and excursions arranged individually by Members, who will receive information and advice on the subject at the Conference headquarters.

PROFESSIONAL MEN IN RUSSIA

MR. ALBERT H. MURRAY [F.] , R.H.A.

Mr. Murray's forthcoming retirement from practice, which has been announced in the *Irish Builder*, will be a matter of interest to his many friends in England. Succeeding to his father's practice, for the past half-century Mr. Murray has carried on a very extensive practice in Dublin and throughout Ireland. He has largely specialised in hospital construction, but his practice has also comprised numerous public and commercial buildings. The City of Dublin Hospital was built from his designs, and he carried out alterations to several other of the Dublin hospitals, including new wings for the Rotunda Hospital, as well as to many hospitals in the provinces. He designed and superintended a new hospital for Kilkenny, for the Countess of Desart.

With the fortunes of the Royal Institute of the Architects of Ireland Mr. Murray has been long, closely and honourably identified almost since his boyhood. For 17½ years he was its honorary secretary, and for 13½ years honorary treasurer; for nearly 40 years he was a member of Council. In 1911 Mr. Murray was chosen as President, and during his term of office worthily upheld the traditions of the office.

The good wishes of members of the Institute will go with Mr. Murray in his retirement.

DECAY IN BUILDING STONES.

The question of the deterioration of stonework in buildings is a matter of general economic importance; but in the cases of our historic buildings and ancient monuments prevention of the serious decay and gradual demolition of tooled surfaces and main structures constitutes a special problem which has engaged the attention of many investigators for a considerable time, without, however, finding any generally satisfactory solution. The investigation involved is very complex, and needs to be approached from different angles with the help of wide scientific knowledge. Accordingly, it has been decided to set up, under the Department of Scientific and Industrial Research, a special committee of the Building Research Board to report on the best methods by which decay in building stones, especially in ancient structures, may be prevented or arrested.

The chairman of the Committee will be Sir Aston Webb, K.C.V.O., P.R.A., and the other members will be:—

Mr. R. J. Allison, C.B.E., F.R.I.B.A.; Professor C. H. Desch, F.R.S.; Mr. A. W. Heasman, O.B.E.; Mr. J. A. Howe, O.B.E.; Sir Herbert Jackson, K.B.E., F.R.S.; Dr. Alexander Scott, F.R.S.; Mr. H. O. Weller, M.I.C.E., Hon. A.R.I.B.A.

All communications should be addressed to the Secretary, Department of Scientific and Industrial Research, 16, Old Queen Street, S.W.1.

NOTES FROM THE MINUTES OF THE COUNCIL MEETING.

7 MAY 1923.

ACADEMIC DRESS COMMITTEE.

The following members of the Council have been appointed to serve on the Committee to consider the details of the proposed academic costume, and to receive

suggestions on the subject from Members and Licentiates: Mr. W. E. Riley, Mr. W. Gilbee Scott, Mr. W. W. Scott-Moncrieff.

ARCHITECTS' FEES FOR SPECULATIVE HOUSING WORK.

A scale of fees for architects in connection with speculative housing work, drawn up by a conference of representatives of the R.I.B.A. Practice Standing Committee, and of the London House-Builders' Association and of the National Federation of House-Builders, has been approved by the Council.

THE GENERAL COUNCIL FOR THE NATIONAL REGISTRATION OF PLUMBERS.

Mr. H. D. Searles-Wood and Mr. C. H. Heathcote have been appointed to represent the Institute at the meeting of the General Council for the National Registration of Plumbers to be held in Bournemouth on 8 and 9 June.

THE CITY CHURCHES.

Mr. Paul Waterhouse, President, and Mr. Arthur Keen, Hon. Secretary, have been appointed by the Council as additional delegates of the Institute on the Royal Academy Conference on the City Churches.

REINSTATEMENT.

Mr. F. W. Wade has been reinstated as an Associate and Mr. William Evans as a Licentiate.

PROFESSIONAL MEN IN RUSSIA.

A very urgent appeal has been addressed to the readers of the *A.A. Journal* for help to be sent to professional men in Russia, and I have been asked to insert a paragraph in our own JOURNAL to the same effect. The matter is being dealt with through the agency of the American Relief Administration in Petrograd, whose organisation is so complete that they can undertake to deliver parcels to the headquarters of any society or association or even to a particular individual if his address is supplied.

The report that has been sent to me is very painful reading, and it is clear that the conditions under which architects and other professional men in Russia have been, and are, living are such that parcels of food are the pressing need of the moment. It appears that as the result of the change in policy and the resumption of private enterprise men who have been in Government employment are now thrown on their own resources and are without either work or means. The whole of the money subscribed is spent on food, and it is stated that £2 5s. is enough to pay for sufficient food to keep a family going for two months.

Donations should be sent to Sir Robert Newman, Bart., M.P., or Sir K. F. Knudsen, K.B.E., Hon. Treasurers, Committee for the Relief of Russian Intellectuals, 325 Winchester House, E.C.2, or I shall be pleased to forward them if sent to me.

ARTHUR KEEN,
Hon. Sec. R.I.B.A.

Obituary

GEORGE WAYMOUTH [F.]

Mr. George Waymouth practised for many years at 23, Moorgate Street, and was 78 years of age at his death.

His practice was mainly in London and its neighbourhood, and his principal works were Messrs. Cranstone's Waverley and Kenilworth Hotels, several buildings for the German Y.M.C.A. and associated organisations including the German Sailors' Home, Waiters' Home, numerous buildings at Libury Farm, the Y.M.C.A. Headquarters in City Road, and a block of about equal size adjoining.

He carried out the restoration of the interesting old roof at Finchley Parish Church, and restored the Parish Church of Theyden Bois.

Besides these he built several private houses at Crouch Hill, Kingston Hill and Northwood, schools at West Thurrock, one or two factories and business premises in the City.

W. J. FENNELL [F.]

Mr. Fennell, who was one of the leading architects of Belfast, died on 29 March. He was apprenticed to the late Mr. O'Callaghan, of Dublin, and his first post was that of assistant to Professor Townsend, professor of engineering at Galway College. From there he went to Dublin Castle. He was sent to Belfast shortly afterwards in the course of his professional duties and decided to settle there. Amongst his principal works were the Mater Infirmorum Hospital (which he won in open competition), the Maternity Hospital, the Medical Institute, the Water Office, and the Cooke Centenary Church ; he also designed a large number of schools in Belfast and other parts of Ulster. He was a Fellow of the Royal Institute of the Architects of Ireland, a member of the Royal Irish Academy and a Fellow of the Royal Society of Archæologists of Ireland. He was, also, until recently a Fellow of the Institute.

R. W. COLLIER [F.]

Mr. R. W. Collier was the second son of the late Mr. Pycroft Collier, Assistant Paymaster-General, and grandson of John Payne Collier, the well known philologist, bibliographer and commentator on Shakespeare. He was articled to Mr. Pepys Cockerell and Mr. Somers Clarke. He carried out many works for various noblemen and for many years worked under the agency of Mr. T. H. Burroughes, land agent. Mr. Collier was devoted to his profession, and was held in high esteem by members of the Institute. He was Tite Prizeman in 1881. As in the case of all architects, his practice suffered during the war, and the death of a son at the front was a blow which seriously affected his health. He leaves a wife and three children.

H. RAMSEY TAYLOR [F.]

Mr. Taylor was born at Stranraer and educated at Glasgow University. Entering the office of Mr. Lesseles as a draughtsman he subsequently became his partner and on his death succeeded to the practice. He, later, joined the firm of Messrs. Cousin and Ormiston, Edinburgh. His chief works were domestic, and he was engaged on additions and alterations to mansions in many parts of the country, including Cloanden, Perthshire, for Lord Haldane ; Elibank, Peeblesshire, for Lord Murray ; Foswell,

Fife, for Sir W. Haldane ; Ahara, Argyleshire, for Charles Stuart ; Auchnacloich, for Thomas Nelson ; Balcaldine, for Menteith Ogilvie ; Cowden Castle, for Miss Christie ; Murdiston Castle, Lanarkshire, for Sir Robert King Stewart, and many others. He also carried out the extension to the printing works for Thomas Nelson and Sons and built the Geographical Institute for Bartholomew and Sons. He was also the architect for the Public Library at Stirling and was responsible for the design of several of the halls and libraries belonging to the Nelson trustees.

Allied Societies

READING SOCIETY OF ARCHITECTS.

FROM THE ANNUAL REPORT.

This report covers the period from the date of the last annual meeting.

During this period the Executive held seven meetings, when, amongst other matters, were dealt with :—Architectural education ; town planning ; quantities ; the premiation of the best local building erected annually ; public lectures on architecture, etc. ; the local history records scheme ; the formation of civic societies ; the bicentenary of the death of Sir Christopher Wren ; St. Paul's Cathedral restoration fund ; proposed amendments to the R.I.B.A. Charter and By-laws ; resolutions to the R.I.B.A. regarding unification and registration and the omission of the Code of Professional Practice from the R.I.B.A. KALENDAR.

One of these Committees received a deputation from the Reading and District Building Trades Employers' Association to consider the proposal that quantities should be supplied for all buildings above an agreed value for which competitive tenders were invited. It is believed that this was the first occasion on which local architects met local builders in conference to discuss a matter of mutual interest.

During the last year general meetings have been held, when the following papers were read before the society :

"Bramshill House," by Mr. J. Hautenville Cope.

"Illuminating Engineering," by Mr. Lawrence M. Tye.

"Ancient Buildings, their Value and Treatment," by Mr. A. R. Powys. This last lecture was given in conjunction with the Berkshire Archaeological Society.

A lecture was also arranged in connection with the Museum and Art Gallery Committee, when Mr. W. McG. Eager, the Secretary of the Garden City and Town Planning Association, gave a very interesting lecture in the Art Gallery on "Town Planning for Industry and Health."

In connection with the Architectural Design Classes arranged by the Society and held at University College, Reading, Mr. W. Sadler, of the Northern Polytechnic, gave an interesting address to members and students on "The Beaux Arts Method of Teaching Architectural Design." The value of these classes is indicated by the fact that in the recent competition for a design for a provincial bank arranged by the B.B. and O.A.A. for the President's Prize all the prizes were awarded to Reading

ALLIED SOCIETIES

students who had attended the classes. The design submitted by Mr. G. Batten was placed first, and the designs of Mr. R. Carter and Mr. R. J. Eele were bracketed for second place.

Other matters in which the members have been interested are the restoration of St. Paul's Cathedral and the excavations at Abingdon Abbey, to special collections for both of which they have contributed.

The total membership of the Society is 46 Fellows, 7 Associates, 27 Students, 10 Associated Craftsmen, 10 Honorary Members—total, 100.

The following officers were elected for the ensuing year :

Chairman : W. G. Millar, F.S.I.

Vice-Chairman : W. R. Howell [F.]

Hon. Librarian : H. W. Rising [F.]

Hon. Treasurer : H. Goodman [Lic.]

Hon. Secretary : C. B. Willcocks [F.]

Executive : C. S. Smith [F.], W. R. Morris [Lic.], J. R. Greenaway, F.S.I., W. J. Freeman [A.]

NOTTS AND DERBY ARCHITECTURAL SOCIETY.

The 60th annual meeting of the Society was held on 30 April at the Society's rooms, 64 St. James's Street, Nottingham, under the chairmanship of the President, Mr. Arthur Eaton, M.S.A., of Derby.

Eight Associates were elected.

The Council reported that the total membership was now 118. They recorded with sorrow the death during the past year of two esteemed colleagues and distinguished members of the profession, Lieut.-Col. A. W. Brewill and Mr. J. R. Naylor, of Derby.

During the past session four general meetings had been held, at which the attendance was most satisfactory, and visits to works in progress had also taken place. The lecture on "Sir Christopher Wren," at the College, which was arranged by the Society, and to which the public were invited, was a great success, the only disappointment being that a large number of people had to be turned away owing to the lack of accommodation. A sum of over £20 was subscribed by members of the Society and given to the Restoration Fund of St. Paul's Cathedral. The Council were asked by the Royal Institute to consider the draft Registration Bill and forwarded two important suggestions. They had been in constant touch with the master builders on all building matters. An exhibition of the Royal Institute Prize Drawings had been arranged at the Castle, and was well attended by those interested in architectural design. The Society finished the year with a balance in hand of over £100, after purchasing a £100 War Bond. Hearty thanks were accorded Mr. Eaton for his two years' excellent presidency, and the retiring hon. secretary. The following officers were appointed :—

President : Mr. E. H. Heazell, Licentiate R.I.B.A. *Vice-President* : Mr. W. R. Gleave [A.]. *Council* : Messrs. A. N. Bromley, A. Eaton, P. H. Currey, R. Evans, W. B. Savidge, F. M. Royle, C. H. Calvert, H. P. Gill, and C. W. Haseldine. *Hon. Auditors* : Messrs. C. E. Howitt and B. Jessop. *Hon. Secretary and Treasurer* : Mr. H. H. Goodall. *Hon. Librarian* : Mr. R. Spencer. *Hon. Secretary of the Designing Club* : Mr. C. W. F. Haseldine.

The meeting concluded with the presentation of prizes to the successful students in the Designing Club, Mr.

E. R. Cornwell receiving the first prize and Mr. Baldry the second. Mr. Tuxford secured the measured drawings prize, and Mr. L. Mew, with a beautiful series of pencil sketches and water colours, was awarded the Neville Pratt Sketching Prize, presented by an anonymous donor.

BERKS, BUCKS & OXON ARCHITECTURAL ASSOCIATION.

THIRD ANNUAL GENERAL MEETING.

By kind invitation of the Provost of Eton, the third annual meeting of the above Association was held in the Election Hall, at the Provost's Lodge, Eton College, on Saturday, 12 May 1923. The report and balance sheet were read and adopted.

The following officers were elected :—

President : E. P. Warren, F.S.A. [F.]. *Vice-Presidents* : W. G. Millar, F.S.I. (Berks); G. H. Williams [A.] (Bucks); H. S. Rogers, M.A., F.S.A. (Oxon). *Hon. Vice President* : P. Waterhouse, M.A., F.S.A., P.R.I.B.A. *Hon. Auditor* : R. A. Rix [A.]. *Hon. Treasurer* : T. T. Cumming [A.]. *Hon. Secretary* : H. Hutt. *Council*—Reading Society of Architects : C. S. Smith [F.], F. H. Floyd [F.], C. B. Willcocks [F.], W. R. Morris, Lic. R.I.B.A., W. R. Howell [F.], H. W. Rising [F.], F. A. Woods [A.]; Oxford Society of Architects : N. W. Harrison [F.], G. T. Gardiner, Lic. R.I.B.A., T. Rayson [A.]; Slough Society of Architects : G. H. Williams [A.], A. Cooper [A.], C. S. Kimpton [A.]

The President, in his presidential address, announced that the special appeal for funds to enable the Association to carry on its education programme had been most generously responded to. The contributions received to date were : General Purposes Fund donations, £20; Education Fund Donations, £90; Education Fund Annual Subscriptions, £4 4s.; gifts of books were made to the Association library.

Previous to the annual meeting, Canon Dalton personally conducted the Association over St. George's Chapel, the Library, the Curfew Tower and other parts of Windsor Castle. This visit was rendered most attractive by the Canon, whose knowledge of the history and architecture of the Castle is probably unequalled, and to whom the cordial thanks of the Association were tendered. After the meeting the Provost of Eton conducted the party through the Provost's Lodge, the Library, the College and the Chapel. The President voiced the thanks of the Association to the Provost. The party also visited the Town Hall, Windsor. The success of the meeting was due to the arrangements made by Mr. G. H. Williams and the members of the Slough Society, who also entertained the company to tea.

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

ANNUAL MEETING, 8 MAY 1923.

The annual meeting of the York and East Yorkshire Architectural Society was held in the Royal Station Hotel, York, on 8 May 1923. The chair was taken by Mr. J. M. Dossor [F.] (Hull). Mr. Stephen Wilkinson [F.] was unanimously elected president, and Messrs. J. M. Dossor and E. A. Munby vice-presidents.

The following members were chosen to serve on the Council : Messrs. George Benson, A. B. Burleigh, C. H. Channon, S. R. Kirby, L. Kitchen, H. Monkman, C. W. C. Needham, S. Needham, A. Pollard, J. S. Syme, W. S.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Walker, T. W. Whipp, R. Jackson, D. Harbron, C. Leckenby and T. Snowdon. Mr. J. E. Reid was re-elected hon. secretary and Mr. E. A. Pollard as hon. treasurer. Messrs. S. G. Highmoor and A. Cowman consented to act as hon. auditors.

The following resolution was passed : "That this Society approve of the Northern Architectural Association extending its area so as to include the County Borough of Middlesbrough." It was resolved that members of this Society who are members of the R.I.B.A. support the nomination of the Committee known as the Emergency Committee at the R.I.B.A. Council election 1923-1924.

Mr. Fred M. Royle, Licentiate, has just retired from the office of Hon. Secretary of the Nottingham and Derby Architectural Society, after 13 years' continuous service.

Architects' Benevolent Society

The Annual General Meeting of the Architects' Benevolent Society was held in the rooms of the Institute on 15 May, Mr. Paul Waterhouse, the President of the Society, in the chair. Amongst those present at the meeting were Mr. Henry Lovegrove, Mr. Percy B. Tubbs, Mr. Edward J. Partridge (President of the Society of Architects), Mr. William Grellier, Sir Charles Ruthen, Mr. A. Saxon Snell, Mr. A. E. Kingwell, Mr. E. C. Hick, Mr. Osborn C. Hills, Mr. L. S. Sullivan, Mr. W. Hilton Nash (Hon. Treasurer), Sir Charles Nicholson (Hon. Secretary), and Miss E. H. Mann (Assistant Secretary).

The President, in moving the adoption of the annual report (which was read by Sir Charles Nicholson), said :—

"One of the pleasantest of the duties which goes with the President's office is that of being allowed to act, perhaps on very false pretences, as chairman of our admirable Benevolent Society. My claims to be in any sense the head of its activities are certainly false inasmuch as the hard work of the Society is all done by those whom I have on both sides of me here, but I should be unwilling to admit that I was a defaulter in respect of good wishes or goodwill.

"My experiences in the now expiring year of presidency have taught me more than I knew before of the value of our uniting in such a work as this. I am not thinking merely of the obvious worthiness of a confederation in which the better-off architects are banded together to help those whose declining years or helpless dependents are stricken with need. I am referring rather to a special happiness which comes from the mere fact of association in the common object at which our Society aims. It is a happiness bred of combined and mutual effort which we architects find also in other spheres and perhaps notably in our various associations for the promotion of architectural education.

"In the report itself the first item that will be noted by you with satisfaction is the fact that the hoped for maintenance of the standard of annual subscriptions has been achieved, and the second point which will attract attention is the successful launching of the new Insurance Scheme.

Its initiation has certainly been smiled upon, and the policies already effected (totalling, I understand, some £6,000) have already indicated the prospect of a useful addition to the Society's annual revenue. The scheme promises, and can perform, most useful service. It secures for the Society half the agency commission on all insurances effected, it secures for the insured a like advantage, and, further—perhaps a more valuable gift—secures him the opportunity of forgoing this bonus in favour of the Society. Moreover, it encourages the thrift of which life insurance is an index.

"I wish it all success ; and I utter the only necessary warning, a warning lest our friends, thinking that by this new scheme the Society has discovered a gold mine, should relax any of their wonted energies on our behalf.

"I think it was due to Mr. Maurice Webb that the idea was put before us, and I am sure that we owe him our thanks.

"In conclusion, gentlemen, our motto is the one word 'effort.' There are still tracts of architectural humanity undiscovered by our searchers or unresponsive to our call. Let us not rest till all architects who pay their way also pay, in however modest a degree, their tribute into our coffers."

On the motion of Sir Charles Ruthen, the Council for the ensuing year of office was elected as follows :—

President : The President of the R.I.B.A. Members : Messrs. Dendy Watney, Henry Lovegrove, A. E. Kingwell, Lewis Solomon, Percy B. Tubbs, Arthur Sykes, William Grellier, Osborn C. Hills, G. Hubbard, L. S. Sullivan, A. Saxon Snell, H. L. Anderson, R. Dircks, E. J. Partridge (representing the Society of Architects), and W. G. Newton (representing the Architectural Association).

Mr. W. Hilton Nash was thanked for his services as Hon. Treasurer and unanimously re-elected, on the motion of Mr. L. S. Sullivan, seconded by Mr. Partridge.

In reply, Mr. Hilton Nash referred to the proposed scheme of insurance, and said up to date the Society had received 173 inquiries. Thirteen policies had been effected, of the total amount of £6,486. The approximate result to the fund was £31 6s. and it was hoped that figure would be increased during the year. In addition, one member who did not require insurance had donated £300 in 3½ per cent. Conversion Loan to the capital of the Society. If the interest of that sum was added to the insurance scheme income, a sum of nearly £50 would have been received during the first three months of the working of the scheme. The letter had also produced additional donations amounting to £214 12s. 6d.

Sir Charles Nicholson was re-elected Hon. Secretary, and many tributes were paid him for his services to the Society.

In reply, Sir Charles said he could not have a more efficient Assistant Secretary than Miss Mann.

The retiring Hon. Auditors, Messrs. C. H. Brodie and H. Lovegrove, were re-elected and thanked for past services, and a vote of thanks to the President concluded the proceedings.

ARCHITECTS' HOUSING FEES

Architects' Fees for Private Enterprise Housing Work

The following Scale of Architects' Fees for Private Enterprise Housing Work has been prepared by the R.I.B.A. in conjunction with the National Federation of House-Builders, the London House-Builders' Association and the National Federation of Building Trades Employers of Great Britain and Ireland.

This Scale is intended to apply to the fees of Architects instructed to prepare House Plans by Builders in cases where the services of the Architect are limited to the preparation of drawings only.

The Council of the Royal Institute recommend all Members and Licentiates of the R.I.B.A. to adopt this Scale as a basis for their fees for the work in question. The Scale has been brought to the notice of the members of the National Federation of House-Builders, the London House-Builders' Association, and the National Federation of Building Trades Employers of Great Britain and Ireland.

SECTION A. HOUSE PLANS. HOUSES OF £500 AGREED VALUE AND UNDER.

1. *Detached Houses.* For preparation of $\frac{1}{8}$ in. Scale drawings and providing one copy only to the Builder, together with $\frac{1}{2}$ in. details in pencil for one house only (including depositing a set of plans with the Local Authority in accordance with their Bye-laws and other legal requirements) the charge shall be four per cent. upon the agreed cost of the house.

2. *Pair of Houses.* For preparation of drawings as set forth above, the charge for one pair of houses shall be three per cent. upon the agreed cost of such pair of houses.

3. *Repetition Work and Lay-out Plans.* For preparation of drawings complete as set forth above and including the preparation of *Lay-out plans to a Scale not less than $\frac{1}{500}$ for the next 25 houses, the fee shall be £3 3s. od. per house.

For the preparation of drawings complete as set forth above and including the preparation of *Lay-out plan to a Scale of not less than $\frac{1}{500}$ for the next 50 houses, the fee shall be £2 2s. od. per house.

*Lay-out is intended to mean that the Builders' roads and sewers have already been formed.

Note.—Examples of the working of the above Section. Number of houses to be built, say, 65.

No. of Houses.		Fees (£500 House).	Fees (£400 House).
One Detached House at 4 per cent. . . . .	..	£20 0 0	£16 0 0
Second House at 2 per cent. . . . .	..	£10 0 0	£8 0 0
Next 25 at £3 3 0 . . . . .	..	£78 15 0	£78 15 0
Next 38 at £2 2 0 . . . . .	..	£79 16 0	£79 16 0
<hr/>			
65		£188 11 0	£182 11 0
Average Fee per house . . . . .	..	£2 18 0·18d.	£2 16 2

N.B.—This Schedule shall include the preparation of plans for two types for the first twenty houses and one extra type for every additional twenty houses. In the event of any deviation in plan or elevation over and above the type plans above-mentioned the Architect's fees shall be decided by mutual agreement between himself and the Builder.

SECTION B. HOUSE PLANS. HOUSES OF AN AGREED COST EXCEEDING £500 BUT NOT EXCEEDING £2,000.

The same Scale as that laid down for Section A shall apply except as regards Clause 1 the Charge shall be three per cent. upon the agreed cost of the house, with a minimum fee of £20.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notices

THE FIFTEENTH GENERAL MEETING.

The Fifteenth General Meeting (Business) of the Session 1922-1923 will be held on Monday, 11 June 1923, at 8 p.m., for the following purposes :—

To read the minutes of the Fourteenth General Meeting, held on 28 May 1923; formally to admit Members attending for the first time since their election. To proceed with the election of the candidates for Membership whose names were published in the JOURNAL for 12 May 1923—viz.: For Fellowship, 12; for Associateship, 58.

To read the reports of the scrutineers appointed to examine the voting papers for the election of the Council and Standing Committees for the Session 1923-1924.

Competitions

LAYING OUT OF LAND AS BURIAL GROUND, YEOVIL, AND PAVILION AT LARGS.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competitions, because the conditions are not in accordance with the published Regulations of the Royal Institute for architectural competitions.

LEIGH-ON-SEA BAPTIST CHURCH.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

BIRKENHEAD ART GALLERY.

The President of the Royal Institute of British Architects has nominated Sir Robert Lorimer, A.R.A., F.R.I.B.A., as Assessor in this Competition.

IAN MACALISTER, Secretary.

Members' Column

APPOINTMENT WANTED.

ASSOCIATE, P.A.S.I. (29), weary of present appointment (public), desires another in private capacity of a more strenuous nature. Working drawings, specifications, quantities, surveying, etc.—Apply Box 926, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

OFFICES TO LET.

ARCHITECT desires to let a large room in his office looking over the gardens of Gray's Inn, with use of telephone—Apply Box 1553, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

R.I.B.A. has one or two large rooms to let in West End office. Would suit busy Architect—Apply Box 2353, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

CHANGE OF ADDRESS.

MR ALEXR. PELLY has changed his address from 144 Leadenhall Street to 3 Buxlersbury, E.C.4. The telephone number remains Central 13726.

MESSRS E. KEYNES PURCHASE AND ROLAND WELCH

THE BUSINESS of the late Mr E. Keynes Purchase will in future be carried on by his partner, Mr. Roland Welch (A.R.), under the title of E. Keynes Purchase and Roland Welch.

PARTNERSHIPS WANTED.

ARCHITECT (A.R.I.B.A.), moderate capital, desires to meet another with view to partnership; references exchanged.—Apply Box 991, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

YOUNG ASSOCIATE practising in London, seeks junior partnership in established firm; would wish to introduce own clients and occupy position of responsibility; highest references will be given and required—Apply Box 444, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ARCHITECT'S PRACTICE.

AN ARCHITECT, with 30 years' London (mostly) and provincial experience, desires to purchase a practice, or a partnership with an elderly gentleman wishing shortly to retire.—Information (which will be treated with strictest confidence) to "Licentiate," Box 3053, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

R.I.B.A. JOURNAL

A RELATIVE of a late member wishes to dispose of 29 Volumes of the R.I.B.A. JOURNAL in unbroken chronological order from 1888 to 1919.—Apply Box 1153, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

Minutes XVI

SESSION 1922-1923.

At the Fifteenth General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 28 May 1923, at 8 p.m., Mr. Paul Waterhouse, President, in the Chair. The attendance book was signed by 26 Fellows (including 13 Members of the Council), 27 Associates (including 4 Members of the Council), 2 Licentiates, and a large number of visitors.

The Minutes of the Annual General Meeting, held on Monday, 7 May 1923, having been taken as read, were confirmed and signed by the President.

The Hon. Secretary announced the decease of :—

Robert William Collier, elected Associate 1881, Fellow 1890, Tite Prize man 1881.

Harry James Gee Smith, elected Associate 1897.

George Harry Mael Trew, elected Associate 1894.

Edward Langridge Lunn, elected Licentiate 1910.

Henry Thomson, elected Licentiate 1911.

Sir James Lemon, elected Associate 1866, Fellow 1873, and placed on Retired Fellows List 1912.

And it was RESOLVED that the regrets of the Institute for the loss of these Members be entered on the Minutes, and that a message of sympathy and condolence be conveyed to their relatives.

The following Member, attending for the first time since his election, was formally admitted by the President :—

J. P. D. Grant [A.]

Mr. Delissa Joseph [F.], having read a paper on "Building Heights and Ancient Lights," a discussion ensued, and, on the motion of Sir William Bull, Bart., seconded by Sir Sydney Skinner, J.P., a vote of thanks was passed to Mr. Joseph by acclamation, and was briefly responded to.

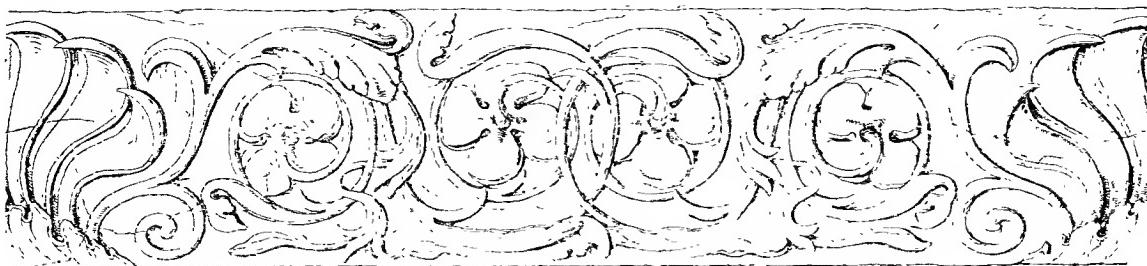
The proceedings closed at 10.10 p.m.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of £2s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Building Heights and Ancient Lights

BY DELISSA JOSEPH [F.]

[*Read before the Royal Institute of British Architects, Monday, 28 May 1923.*]

IT is some 45 years since London was startled by the erection of Queen Anne's Mansions at Westminster. It was the tallest secular building that had ever been erected in London.

It was peculiarly conspicuous as seen from St. James's Park, and, having been built in plain bricks, without any attempt at architectural treatment, it was regarded, and I believe is still regarded, as an eyesore.

At that time there was nothing to prevent the erection of such a building, except the Law of Ancient Lights, and, as a matter of fact, a famous action was brought against the building owners to prevent their injuring the access of light to the Guards' Chapel, and the building in the immediate neighbourhood of the Guards' Chapel was cut back, and this cutting back is one of its ugliest features.

The only revenge which the public could take was to call the building "Hankey's Folly," notwithstanding which, it evidently supplied a want, and became, and I believe still remains, a very successful and convenient block of residential flats.

After many years, that is to say, shortly before 1890, the building then known as Hyde Park Court, but now known as the Hyde Park Hotel, was erected on the south side of the Park, to an unusual height, and as a result there was an outcry against the erection of high buildings. I am not aware that the basis of this outcry was any deeper than "a dislike for the unlike."

The building itself was designed by Messrs. Archer and Green, and, in the opinion of some, of whom I am one, presents a very fine, and, indeed, in certain conditions of the atmosphere, a very picturesque block, as seen from Hyde Park.

However, the effect of the outcry was that, when the London Building Act of 1890 had been drafted, clauses were introduced giving to the London County Council the control of the height of buildings, the maximum being fixed at 90 feet. In the Act of 1894 this was reduced to 80 feet from the pavement level, plus two storeys in the roof, unless the consent of the Council were first obtained to any greater height.

It therefore became necessary, in order to secure any greater height than 80 feet, to make an application to the London County Council, and, should they give their consent to such increased height, it was necessary for the building owner to serve notices on all surrounding parties within a distance of 100 yards, so that their objections to the increased height might be considered by the Council.

In asking oneself the question why, so far as one is able to ascertain, no application for increased height was made between 1894 and 1920, one can only come to the conclusion that it was the fear of what might happen if one had to serve notices on all the neighbours within 100 yards which had so far discouraged applications for concessions, and this came home to me forcibly lately, when I learnt that one of our members, who in 1921 obtained a

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

height concession from the County Council, had to serve 600 notices upon surrounding owners.

The discretion left by the Act of 1894 in the hands of the L.C.C. had, therefore, by reason of its terrors, remained practically a dead letter until 1921.

In 1920, when the great demand for business accommodation in the centre of London which had arisen after the Armistice was inadequately met by the existing buildings, a very suggestive paragraph appeared in the estate market column of *The Times*, the writer asking, as London was obviously unable to accommodate its business, whether the time had not arrived when the London Building Act of 1894 should be so modified as to allow the erection of higher buildings.

It had fallen to my lot to design two buildings facing Kensington Gardens, three buildings facing Hyde Park, and a block of buildings facing the river at Chelsea Embankment, and in each of these cases I had been greatly impressed with the loss of opportunity which the regulation as to heights had forced upon me.

I therefore welcomed the suggestion in *The Times*, and followed it up by addressing to that newspaper a series of letters in which I developed the idea of higher buildings, at the same time drawing attention to the fact that these could be obtained, if the County Council exercised the discretionary powers which it already possessed, without the need of making any alterations in the Act of Parliament.

This correspondence aroused a great deal of interest and brought many replies ; and as a result, when the subject was becoming one of general concern, I thought it my duty to bring it under the *ægis* of the Royal Institute of British Architects, and therefore in 1920 I prepared and read before this Institute a paper on the subject, entitled " Higher Buildings for London."

The reading of this paper was followed by a discussion of unusual interest, in which a great many distinguished men took part.

Immediately after the reading of the paper the Institute appointed a Building Act Committee to study the Building Act as a whole, and, incidentally, the question of higher buildings, and I was invited to join that Committee, and was eventually appointed its Honorary Secretary.

This Committee held numerous meetings, and studied the question of higher buildings from every point of view, and arranged a series of conferences with the Building Act and the Fire Brigade

Committees of the London County Council, the City Lands Committee of the Corporation of the City of London, the Metropolitan Society of Medical Officers of Health, the Incorporated Association of Retail Distributors, and the London Society, and, after an exchange of views, the Committee presented to the Council of this Institute their report, favouring the erection of higher buildings in London, recommending 120 feet in streets, and 150 feet facing parks and the riverside, and recommending provision for assuring fire resistance, fire escape, and sanitation.

This report was presented to and rejected by the then Council, and subsequently presented to and rejected by a general meeting of the Institute, and the Building Act Committee was discharged before it had completed its functions.

In the meantime the subject had aroused a large amount of attention and public interest, and hundreds of newspaper cuttings were sent to me from all parts of the country dealing with this topic. The subject has even penetrated the classroom, for Messrs. Trehearne and Norman have offered a prize to be awarded by the Society of Architects for the best essay sent in by its students on " The Influence of High Buildings on Civic Development."

This publicity had the effect of inducing the architects of several buildings which lent themselves to a greater height than the normal to apply to the County Council for consent to increased height.

One building was sanctioned 100 feet in height, and two others 110 feet in height, and *The Times* reproduced those designed by Sir J. Burnett and Mr. Campbell Jones to illustrate the fine architectural effect produced by these concessions.

The Bush Building, designed by Messrs. Helme and Corbett, was subsequently erected with a height on the Strand frontage of 106 feet, with a height on the return frontages of 124 feet, and this building is to have a central tower which will be 144 feet above the street. We have thus gradually climbed, in three years, from 80 feet to 110 feet, and from 110 feet to 124 feet.

Messrs. Trehearne and Norman's building, Africa House, Kingsway, is 106 feet high, the increased height being obtained by the setting back of the vertical face of the building above the 80 feet so as to be within an angle of 75 degrees therefrom, thus very ingeniously attaining height and dignity, without technically encroaching upon the terms of the Act.

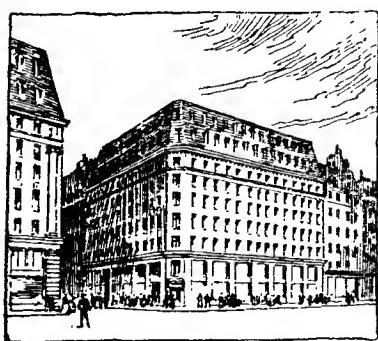
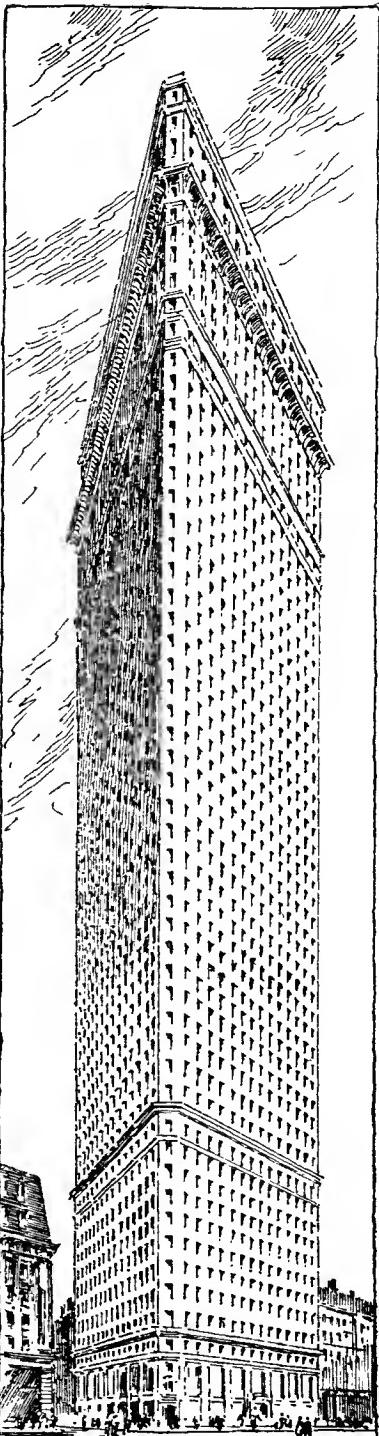
BUILDING HEIGHTS AND ANCIENT LIGHTS

The opposition, which had been very active, had once more raised its old war-cry of "No skyscrapers," when *The Times* was good enough to publish, on 23 February 1922, three drawings prepared by me, showing, alternatively, on an assumed site of identical dimensions, a building 80 feet high, a higher building of 150 feet, and a "skyscraper" of 600 feet high, so indicating to the public the fact that higher buildings were not "skyscrapers," and were, indeed, only one-quarter the height of the average "skyscraper." These drawings are photographed on a large scale (Fig. 1).

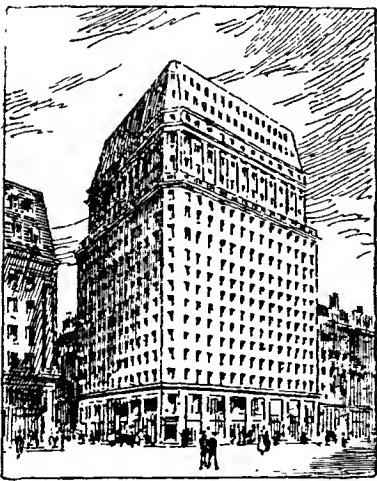
In the meantime, the Institute having abandoned its control of the subject, the matter drifted into the hands of the Incorporated Association of Retail Distributors, upon the Board of which all the great stores of London are represented, and this Association has formed its own Committee, which is now engaged in impressing upon the authorities the need for higher buildings, so as to meet the demands of the great industries in which they are interested.

The arguments against higher buildings have been that they would be unhealthy, that they would be unsafe, that they could not be attacked adequately in case of fire, and that they would be unsightly.

In the addresses which I made on behalf of the Building Act Committee of this Institute in connection with the conferences with the various public authorities, I traversed these criticisms, pointing out that, so long as there were no internal courts, high buildings would not be insanitary; that so long as modern methods of fire resistant construction were employed, they would be as fire resistant as lower buildings, and that with alternative staircases as means of escape, they would be no more difficult to escape from than lower buildings; that the objection that if a fire-escape staircase is outside a building it might be dangerous to use it in unfavourable weather, could be met by the fire-escape staircase being placed inside the



AN 80 FT BUILDING



A HIGHER BUILDING (150 FT)



A SKYSCRAPER" (600 FT)
DELISSA JOSEPH, ARCHITECT.

FIG. I

building; that fire attack could be accomplished by building in the structures permanent dry stand pipes, with hose at each floor level, and that at the point at which the water pressure ceased from the mains the water could be carried to the higher levels by automatic electric pumps, such as are employed, for similar purposes, in St. Paul's Cathedral.

On this question of fire attack, Mr. Aubrey Thomas, who designed the Royal Liver Building at Liverpool, which is 170 feet above the river bank, with five additional storeys in the towers, and a total height to the top of the towers of 312 feet, pointed out to me, speaking with his experience as Consulting Surveyor to the Fire Salvage Association of Liverpool, Ltd., that a building of this type, with vertical dry pipes, with hose at each floor level, and with fire-escape staircases, could be attacked more promptly than ordinary buildings not so appointed, because while the engine is being attached to the base of the dry pipe, and sending water up to the hose, the firemen, without the employment of long ladders, could run up the emergency staircase to that part of the building which was affected, pick up the hose, switch on the high level electric pump, and immediately attack the fire, and that, the building being fire resistant, the fire could readily be localised.

I further pointed out that there should be no apprehension as to amenity, because it was obvious that, if American architects can produce "skyscrapers" 600 to 700 feet high which were things of beauty, British architects would have no difficulty in producing buildings 150 feet high which would be of real architectural interest.

Apart from the practical advantages of erecting higher buildings by their supplying the unsatisfied demand for accommodation in Central London, the construction of these buildings, in suitable situations, would have the same æsthetic value in the beautification of London as the "skyscrapers" have had in enhancing the architectural interest of New York. After all, man's aspiration through the ages has been towards higher buildings, and the great spires, towers and domes of the cathedrals, churches and public buildings of the world clearly indicate this aspiration, and show that in height has been found a method of expressing dignity, importance and purpose.

Higher buildings for London will not involve, as some of the critics allege, the construction of great rows of towering buildings of monotonous sky line,

as, by reason of the necessary restriction which will be placed upon such buildings by the falling in of leases very gradually, their appearance on the landscape will only be occasional for many years to come.

In the 29 years which have elapsed since the London Building Act of 1894, the extraordinary development of London as a world centre of commerce, shipping and finance, and as a place of residence and of pleasure, has resulted in its having proved its inadequateness, on its present lines of development, to provide the accommodation necessary for its growth in these varied aspects, and as, alongside with this growth, there have been revolutionary changes in methods of construction, the time has arrived when the terms of the Act should be administered in a more generous spirit, and in order to enable the comparatively undeveloped and under-developed areas of Central London to afford adequate space for the varied interests therein centred.

The case for upward development of commercial buildings is practically unanswerable; whilst the case for increasing domestic accommodation facing parks, open spaces and the riverside is almost as strong, because if a greater number of persons could be accommodated around the open spaces in the centre of London, the less will be the amount of traffic between the outskirts and the centre, and the less will be the wear and tear and waste of time involved in journeying from places of residence to places of business; and, by increasing the opportunities for domestic accommodation in the neighbourhood of parks, open spaces and the riverside, the enormous benefit of living in these healthy and pleasant surroundings will be extended to a very much larger number of persons than can at present enjoy these privileges.

The subject of higher buildings is likely soon again to reach a practical stage, as the present Council of the Institute has reappointed its Building Act Committee, with instructions to study the whole of the Act of 1894 in the light of the needs of modern practice, and this Committee, which is now sitting, has already given some attention to the topic of higher buildings. It will probably be found, when it presents its report to the Council, to recommend a more generous administration of the present Act, although it may not be prepared to go quite as far as the Building Act Committee which was first appointed.

BUILDING HEIGHTS AND ANCIENT LIGHTS

The broad principle of these recommendations will probably be found to take some such form as follows :—

That in streets 40 feet in width, buildings should be permitted up to 60 feet in height ; that in streets 50 feet in width, buildings should be permitted up to 75 feet in height ; that in streets 60 feet in width, buildings should be permitted up to 90 feet ; and that in streets 80 feet in width, buildings should be permitted 120 feet in height ; the broad principle being that the height of the building may be half as much again as the width of the street. The City, by reason of its peculiar circumstances, would still be allowed to put up 80-feet buildings in any street, however narrow, provided the street was constructed before 1862, subject to the surrounding ancient lights, but it would have the advantage, in its 80-feet streets, of being able to erect buildings up to 120 feet in height.

In this connection a striking fact emerges. Under the present Act, a building may be 80 feet high in a 50-feet street, with two storeys in the roof, absorbing thereby an angle from the pavement level at the opposite side of the street of $61\frac{1}{2}$ degrees, whereas, in the proposed extension of the Act, a building 120 feet high with two storeys in the roof, in an 80-feet street, will only absorb an angle from the pavement level at the opposite side of the street of $58\frac{1}{2}$ degrees. In other words, the proposed greater height in a wider street would absorb a lower angle of light than the present permitted height of a building in a narrower street. This is illustrated by the diagram (Fig. 2).

This ratio of $1\frac{1}{2}$ times the width of a street would be in accord with part of the new policy recently laid down in New York, which allows buildings in business quarters to be $2\frac{1}{2}$ times the width of the street, and in the residential quarters to be $1\frac{1}{2}$ times the width of the street, the remainder of the building being kept within an angle projected from the centre of the street to the top of the main parapet ; the work behind that projected line to be accomplished by a series of sets-back, which the American architects have already converted into groups of magnificent towers, which have recently received high commendation from Professor C. H. Reilly, in *The Manchester Guardian*.

It can no longer be contended that a building half as high again as the width of a street will darken the opposite buildings, as it has recently been laid down in the case of Semon and Co., Ltd., *versus*

the Bradford Corporation, that a building 73 feet high in a street 45 feet wide leaves the opposite owner in the enjoyment of a sufficiency of light, and the judge, in this case, therefore refused to grant an injunction.

Under the proposed modifications, buildings up to 120 feet in height would be permitted in streets 80 feet in width and in such positions as Portland

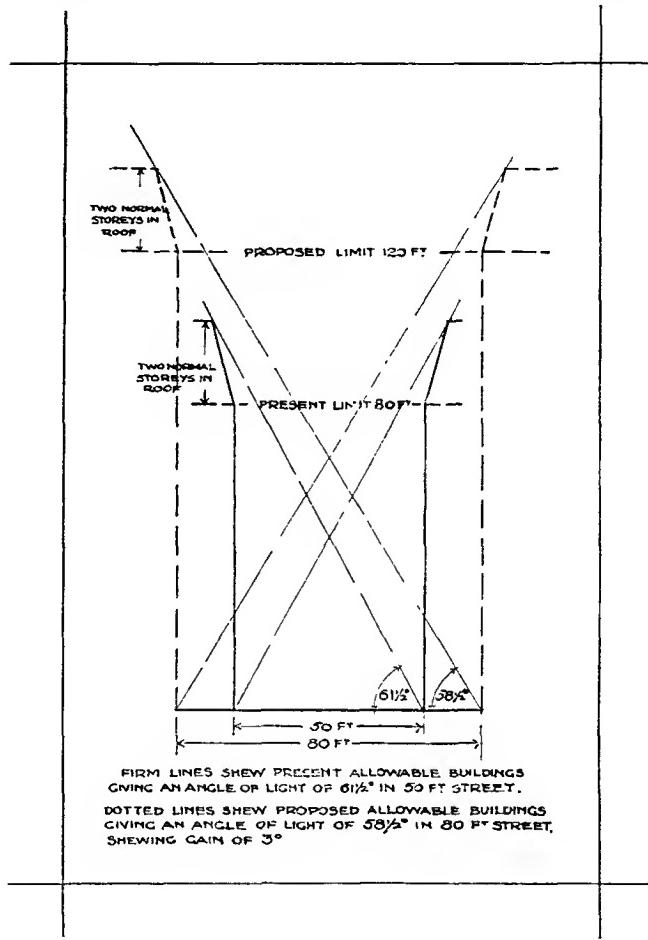


FIG. 2

Place, which is 125 feet wide ; Euston Road, which is 160 feet wide ; Marylebone Road, which is 120 feet wide ; Mile End Road, which is 145 feet wide ; and Clapham Road, which is 130 feet wide.

It will be realised that if the scheme being discussed by the Building Act Committee is adopted, it will take away the privilege which exists under the present Act, which allows a building 80 feet in height to be erected in any street, provided that street was formed before 1862, however narrow that

street may be, so that a concession in the present Act, which may become a nuisance, will thus be removed, except in the case of the City of London. It will be probably found that the Committee will recommend that the present provision as to spaces in the rear of domestic buildings, requiring such buildings to be set back within $63\frac{1}{2}$ degrees from 16 feet above the pavement level, should stand; and that the provisions with regard to ratio of lengths, widths and heights of internal courts shall also stand in the case of domestic buildings.

It will also probably be proposed that the return frontage of a building, which is at present limited to the height of the main frontage for 40 feet of its return, shall be extended so that the return frontage may be 50 per cent. higher than the width of the street in which it stands, without limiting the length of the return.

There is also a proposal for the abandonment of the present regulation requiring notices to be given to owners within 100 yards of a building the height of which is contemplated to be increased.

With regard to the question of buildings facing parks, open spaces and the riverside, it is proposed that buildings 150 feet high should be allowed, and also in such open positions as Hanover Square, which is 280 feet wide; Trinity Square, 360 feet wide; and in Lincoln's Inn Fields, which is 640 feet wide.

This modified scheme, if adopted by the Council, would meet many of the criticisms of the opponents of higher buildings, and would make it possible, in course of time, for London to attain, in its present thoroughfares, such an appreciable increase of height as will go a large way to meet the demands for increased accommodation; and there is every reason to hope that, by the time these suggestions have been reported to and studied by our own Council, and have, in turn, been reported to and studied by the London County Council, the London County Council in its turn will so far meet the demands of its constituents as to incorporate these proposals in the new Consolidation Bill which it has in contemplation.

There is one practical aspect of the proposal for higher buildings which may well be borne in mind. One of the results of this proposed scheme for the adequate development of an inadequately developed London would be that the assessment of London would be gradually increased, and this enormous

additional assessment, when capitalised, would be available, either for the widening of congested thoroughfares, or for the construction of artisans' dwellings, or for the relief of the rates in the poorer districts.

If it is contended that higher buildings would enable ground landlords to obtain higher ground rents, the answer is that it would make them liable for the payment of higher property tax, which would go to the benefit of the State.

The proposed amendments, if incorporated in the new Consolidation Act, instead of leaving the question of heights to the discretion of the London County Council, would definitely legalise the proposed increases.

But concessions with regard to the height of buildings would only be of qualified value so long as the development of London is held back by the Law of Ancient Lights.

The Law of Ancient Lights is founded upon the old Prescription Act of 1832, which, shortly, gives the right to a window being regarded as an ancient light if it has uninterruptedly enjoyed the access of light for a period of 20 years.

One advantage which the Prescription Act offered was in fixing the period which constituted the right, because, before that Act, the definition was that the light should have been enjoyed "during time whereof the memory of man runneth not to the contrary," which period was at one time fixed as the year 1189, on the first day of the reign of King Richard the First.

The oppressive application of this Act has, over a long period of years, been largely covered by Case Law, and up to the time of the famous Colls case, in 1904, an angle of 45 degrees was generally regarded as the measure of ancient light to which a window was entitled.

The Colls case modified the position by its being defined by the judgment that a man was only entitled to a certain amount of light "sufficient for the ordinary purposes of mankind," but, as this description was not defined by the Judges in angles, it has been the general practice, since the Colls case, to make the definition an angle of 50 degrees; but this definition has been materially overruled by the recent case to which I have already referred, and, therefore, the position with regard to this subject is still in a very fluid state.

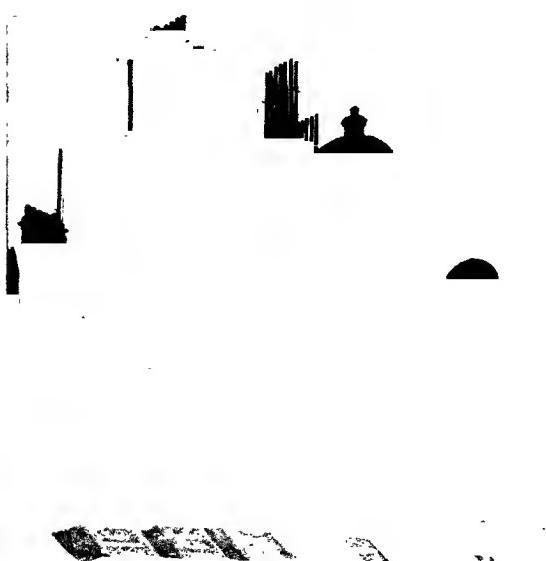
A convenient summary of the judgment of the House of Lords in the case of Colls at the suit of



Delissa Joseph, Architect
FIG. 3—WEST INDIA HOUSE, LEADENHALL STREET



Delissa Joseph, Architect
FIG. 4—RUTLAND COURT, KNIGHTSBRIDGE



Delissa Joseph, Architect
FIG. 5—COBURG COURT HOTEL, BAYSWATER



Delissa Joseph, Architect
FIG. 6—109 KINGSWAY

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The Home and Colonial Stores, Ltd., was published by the Society of Architects in 1904, in the following terms :—

" That a man is no longer entitled to all the light he has hitherto enjoyed, but only to so much as is reasonably necessary, taking all the circumstances of the case into consideration ; and before he is entitled to relief, he must be able to show that any obstruction of his light constitutes a nuisance."

The latest dictum, however, is that what has to be established is not so much what you take away as what you have left, and that what is left should be sufficient for the ordinary notions of mankind.

It has been contended that if 1 per cent. of the total light reaching a given window-sill, from an unobstructed horizon, penetrates to the darkest part of the room behind same, a sufficient amount of light remains. The credit for this method of calculation belongs to Mr. P. J. Waldram.

Beyond this, injunctions have been granted in cases where the plaintiff only fears prospective damage, even before the buildings in question have been either demolished or re-erected. These are known as *quia timet* actions.

Other problems that present themselves from time to time are :—

Can an ancient light be maintained if, when reproduced in a new building, its plane has been recessed or advanced ? Can an ancient light be reopened and claimed for if it has been closed for a period ? Does temporary obscuration, such as ground glass and leaded glass and iron bars, prejudice a claim to ancient lights ? Does the special user of a window entitle its owner to special light or special damages ? And does the fact that two adjoining properties have at one time been in a common occupation deprive each property of the right of acquiring ancient lights one against the other ?

The result is that, apart from the restraint which its uncertainty places upon the adequate and definite development of a building site, it is difficult for a building owner to feel any certainty as to his being able to carry out his work without interference until the work is actually in progress, unless he adopts the expensive process of instructing his architect, before commencing work, to approach every surrounding owner whom he has reason to think might have claims to ancient light, and then designing his building in strict accordance with his neighbours' rights, unless he is able to purchase them.

And even when these precautions have been taken, there is no certainty that, at the eleventh hour, an undiscovered claim for lights may not be presented, which may completely embarrass the development of the site.

There is also the not infrequent possibility of opposite owners declining on any terms to sell their rights of light, and this would practically ruin the architectural aspect of a block of buildings, as has actually happened on more than one occasion.

An instance of this kind occurred in a building designed by me, West India House, Leadenhall Street (Fig. 3).

Where a building owner declines to pay compensation even if acceptable to the dominant owner, lop-sided buildings may also result, which is illustrated by three buildings of my design—Rutland Court, Knightsbridge (Fig. 4); Coburg Court Hotel, Bayswater (Fig. 5) ; and 109, Kingsway (Fig. 6). These photographs were taken by Mr. F. R. Yerbury.

To give some idea of the burden which the present situation places upon building owners, I shall quote two cases in which I was called in.

In one instance I had to settle 34 cases before the buildings could proceed, and in another instance 64 cases. In each of these instances I had first to discover all the ownerships, freehold, long leasehold, short leasehold and tenancies ; and, after these discoveries, I had to negotiate each individual case. The process took many months, and the payments out ran into many thousands of pounds.

In emphasising the need for reform I am drawing upon an experience of 40 years, during which time I have practised in a continuous glare of ancient lights.

The Law having given certain rights of light, they must be duly respected, but there is every reason why the present haphazard method should be superseded by a method which would enable the building owner to know precisely, before he started his works, what are his neighbours' rights, how those rights may be met, and how and on what terms they could be acquired.

In other words, what is needed is the establishment of a legal procedure which, whilst protecting all existing rights of surrounding owners, will enable the building owner definitely to ascertain his position before he undertakes the burden of his work.

Several efforts have been made from time to time to deal with this difficult subject.

BUILDING HEIGHTS AND ANCIENT LIGHTS

In 1893 a report upon the subject of Ancient Lights was prepared and issued by the Science Standing Committee of the Royal Institute of British Architects.

This report, shortly, suggests that when an owner of Ancient Lights considers his rights will be interfered with by a proposed building, he shall demand an inspection of the drawings, and, if he objects to the proposed work, shall serve formal notice on the opposite owner, sending the name of his surveyor who is representing his interests.

The opposite owner shall then appoint his surveyor ; the two surveyors shall meet, and, in the event of their being unable to come to an agreement, refer the question to an umpire, who shall decide what rights the respective owners have, and shall settle the question of alterations of buildings, and compensation, if any.

In the event of either party refusing to adopt the award, it shall be referred to a tribunal to settle, consisting of two barristers, three architects and three surveyors.

The award shall be binding except on the question of compensation, as to which either party will have the right of appeal in the High Court.

The sting of the report was in the last clause, which provided "that no building erected after a certain fixed date shall acquire any rights of light over neighbouring property."

This clause was condemned in the course of the debate which followed, and the report was referred back.

In 1898 the Society of Architects prepared a petition setting out the difficulties which the then condition of the Law with regard to Ancient Lights placed in the way of building owners, and urged "that a Parliamentary Committee be appointed to inquire into the present Law with regard to Ancient Lights with a view of saving the large amount of money being expended in determining the rights of owners in regard to same."

The deputation which presented the petition was received by the then Lord Chancellor, the Earl of Halsbury, who informed the deputation that he would give the matter his careful consideration. However, so far as I am able to discover, nothing resulted from this action.

In 1900 Mr. Fletcher Moulton, K.C. (afterwards Lord Moulton), Professor Beresford Pite, and Mr. J. Douglas Mathews read papers before this Institute on the question of reform in the law of Ancient Lights.

Mr. Fletcher Moulton, in his paper, argued in favour of compulsory purchase of rights of light, on the same lines as compulsory purchase of land when required for public improvements or railways.

He also advocated that the Court should be strengthened by having architect-assessors, in the same way as the Admiralty Court has the aid of the Trinity Masters. He further suggested that the Court should have wider powers, which would enable it, with the aid of the assessors, to adjust such cases on terms such as "honest and reasonable men, with practical knowledge, would arrive at, as a proper solution if the case were to be settled outside the Courts, instead of inside."

In reading the report of the debate which followed, in the JOURNAL of 18 April 1900, I find that I took an active part in the discussion, and strongly advocated arbitration between the architects of the respective owners, as affording an easy solution to most difficulties.

This is a policy which I have consistently advocated, and frequently put into practice.

The outcome of this paper's discussion was the formation of a Joint Committee, appointed by this Institute and by the Surveyors' Institution. The Committee included besides Mr. Fletcher Moulton, Mr. Douglas Mathews, Mr. Edward A. Gruning, Professor Roger Smith, Mr. (now Sir) Alex. Stening, Mr. A. T. Stewart, Mr. H. Chatfield Clarke and Mr. G. M. Freeman, K.C.

The result of the work of this Joint Committee was the production, in 1903, of an Ancient Lights Bill to amend the law relating to easements of light, which was read for the first time in the House of Commons on 22 June 1903.

I have prepared the following *précis* of the chief features of this Bill, as follows :—

(1) A provision that a dominant owner shall be only entitled to such an amount of light as is reasonably necessary for comfortable use and enjoyment of a dwelling house, and for beneficial use and occupation of a place of business ; that a dominant owner shall not be entitled to any extraordinary amount of light necessary for any particular purpose.

(2) A provision that an owner who is fearful that by the passing of time his neighbour may obtain rights of light over him, and which, according to the current practice, he might seek to protect by the erection of a screen, may protect his rights without erecting a screen, by serving a notice, in writing,

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

upon the opposite owner, such notice being regarded as adequate protection against the acquirement of dominating lights.

(3) A provision that a dominant owner may call upon the servient owner to produce plans of his new buildings and records of his old buildings ; that within seven days of such inspection the dominant owner shall serve upon the servient owner notice of his objections or the terms upon which he is willing to permit his lights to be interfered with ; that the servient owner shall, within a further seven days, notify the dominant owner, in writing, either that he accepts the terms of purchase of the lights or that he will submit to the dominant owner's requirements for modification ; that if the servient owner is not willing to accept the terms, he shall, within seven days, serve notice upon the dominant owner to that effect, and shall state the name of the surveyor selected on his behalf.

The two surveyors so appointed shall, within ten days of appointment, meet together and endeavour to adjust the issue, but before doing so they shall appoint an umpire, to whom the matter shall be referred in case they fail to agree. The umpire is to view the sites of the dominant and servient owners' premises, and to make his award within 21 days after appointment. The surveyors or the umpire are to decide the right of the owner who proposes to build to carry out his works ; the alterations necessary to his buildings so as to prevent or lessen obstruction of light to the dominant owner's premises ; the amount of compensation eventually to be paid ; the alterations in the dominant owner's premises required to ensure enlargement of light area in the dominant owner's premises, so as to reduce the damage, and the amount of costs to be paid by either party.

In the event of either party neglecting to appoint a surveyor, and in the event of no umpire being agreed upon, the Presidents of the Royal Institute of British Architects and the Surveyors' Institution shall appoint the surveyors and the umpire.

(4) The award of the surveyors or the umpire to be conclusive, except that either party may appeal, within 14 days, to a tribunal of appeal, which shall have power to rescind the award or modify it.

(5) If the appellant refuses to accept the decision of the tribunal and gives security, he may, within one month of the decision of the tribunal of appeal, bring an action in the High Court.

(6) The Bill provides for the composition of the

tribunal of appeal ; three members to be appointed by a Secretary of State, three members to be appointed by the R.I.B.A., and three members to be appointed by the Surveyors' Institution, and provides that the tribunal is to be capable of holding its sittings in any part of England ; there is a provision for the payment of fees, to be fixed by a Secretary of State, to the members of the tribunal, which has power to appoint clerks at salaries to be fixed by a Secretary of State, and to establish offices for the purposes of their work.

(7) There is a special provision that the members of the tribunal shall personally visit the premises in question, and that the parties shall be entitled to be heard, either in person or by counsel, and the tribunal is to have power to administer the oath to witnesses.

The order of the tribunal of appeal may be enforced by the High Court as if its order had been an order of the Court.

(8) There is a further provision that, if a dominant owner brings an action against the servient owner for an injunction, either party may apply to the Judge of the High Court to hear the action with assessors, or to refer the matter to arbitration, and that, if, on hearing such application, the Judge shall be of opinion that the claim may be satisfied by damages, the motion may be referred to arbitration ; or, if the Judge is of opinion that the action for injunction has been unreasonably commenced, he may order the party bringing such action to pay the costs of the defendants.

It will be observed that this scheme, whilst setting up a tribunal, does not put an end to the possibility of litigation.

I can find no record of what became of this Bill, nor why it did not proceed beyond the first reading.

In 1918 the Council of this Institute, at the suggestion of the late Mr. H. T. Hare, attempted to deal with one aspect of this matter, by drafting a Bill having for its purpose the preventing of the acquirement of new rights of light, but it is now generally recognised that this Bill would have had no chance of becoming law, and that, if it had become law, it would have resulted in grave hardship in the course of time, inasmuch as, one building owner having no control over another, buildings might be erected in such a manner, in relation to each other, that both owners would be injuriously affected by the absence of any control of

BUILDING HEIGHTS AND ANCIENT LIGHTS

rights in relation to lights, showing that there may be good as well as evil in this question of ancient lights.

The only practical attempt which has so far been made to deal with this matter, by procedure outside the Law Courts, has been the work carried out by the Dean of Guild Court in Scotland, before which body all plans of proposed new buildings are placed to enable it to decide, as between the respective ownerships, what would be the proper height of frontages and the height and width of areas, so as to afford mutual lighting facilities to adjoining and opposite buildings.

The present Council of the Institute has recognised the urgency of this question of Ancient Lights, and has requested the Practice Standing Committee to investigate the matter, with the view of drafting a Bill.

The Practice Standing Committee has appointed a sub-committee, who have been giving close study to the subject, and this sub-committee will, doubtless, in due course, present the draft of a proposed Bill, the effect of which would be to place the procedure with regard to ancient lights very much on the lines of the procedure at present adopted with regard to party walls under the London Building Act of 1894, a suggestion which emanated from Mr. Sydney Perks.

The position with regard to party walls is this :

When a building owner proposes to erect a new building next an existing party wall, and desires to underpin that wall or to thickness it, or to cut into it, or to raise upon it, he has to serve a notice upon the adjoining owner. The building owner and the adjoining owner each appoint an architect to represent them, the two architects then appoint a third architect, and any two of the three architects, after conference and inspection of drawings and buildings, prepare and issue an award, stating the nature of the work to be done, the manner in which it should be carried out, and at whose cost, and this award is binding upon all parties. Thus the rights of each party are clearly defined.

I think it will be found that the proposals of the Ancient Lights sub-committee, which they will submit to the Council, will therefore probably take some such form as follows :—

Two months before commencing to build or pull down or alter his premises, the building owner must serve upon the adjacent and surrounding owners who may be affected by the height of the

new buildings, notices of his intention to build, and he must exhibit to them the drawings showing his proposals.

The adjoining or surrounding owner having the enjoyment of ancient lights will appoint an architect to represent his interests to meet the architect of the building owner. The two architects will then appoint a third architect as arbitrator. If the parties are unable to agree upon the arbitrator, the arbitrator is to be appointed by the President of the Royal Institute of British Architects.

The arbitrator will examine the plans, the site and the surrounding premises and the ancient lights alleged to be affected. He will then issue an award in which he will first define the line within which the new buildings may be erected, and which will not, in his opinion, affect the ancient lights which the surrounding owners possess, and he will further define that, if this light is affected by raising above the defined line, what compensation shall be paid to the surrounding owners.

The building owner will, therefore, have the option either to keep his building within the line defined by the arbitrator, or to pay the awarded compensation for encroachment.

As it very often happens that a small alteration in a surrounding owner's building by the enlargement of a window may give him some measure of increased light to compensate for some of the loss, in such cases the arbitrator will have power to direct that the building owner shall, at his own cost, execute these works of improvement on the adjoining premises.

Now here is a practical scheme which, if adopted by the Council, will completely protect owners of *bonâ fide* ancient lights, and which will enable the building owner, before he starts his work, to know precisely what he may do, and what he will have to pay in order to do it.

He will, therefore, be able to proceed with his work, with his mind free from the constant fear of writs for injunctions, and his architect will be able to sit down to his design with an untroubled mind.

I have associated the subject of building heights with ancient lights, because they are so largely allied to one another, and interact so materially one upon the other.

It is not sufficient to ask for a waiving of the present administration with regard to building heights, so long as the application of the law of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Ancient Lights is administered as at present, and it is futile to pursue the question of building heights without at the same time attacking, in a common-sense way, the question of ancient lights.

Both these matters stand together. Both these antique laws offer a continual obstruction to the adequate development of this great city, and are the cause of the frustration of many important operations. Both are subjects of so immediate and practical a character as to be worthy of close study and constructive reform by the members of this

Institute, and it is for these reasons that I have ventured to place before you, at some length, the urgent need for these reforms, and to suggest the lines along which these reforms should be pursued.

I submit that this question of restraint on development is not a local question, but a national question, insomuch that, unless facilities are given for the adequate development of the business area of the heart of the Empire, the consequent scarcity of accommodation must necessarily react against the growth of national prosperity.

Discussion

THE PRESIDENT, MR. PAUL WATERHOUSE, M.A., IN THE CHAIR.

The Rt. Hon. Sir WILLIAM BULL, M.P.: I did not know I was to be called upon to move the vote of thanks at once ; I thought there would first be a general discussion, and that at the end of it I should say a few words, after hearing various opinions, and in a way sum them up. But as your President has decreed that I shall move the vote at once, I have very much pleasure in doing so.

I am an amateur on this subject, and I am surprised that I have been invited here, because my knowledge of it is so meagre, but I have had the pleasure of knowing Mr. Delissa Joseph for about thirty-five years, and therefore, when I knew he was to read a paper, I naturally responded to the invitation and said I should be delighted to come. I followed Mr. Delissa Joseph's correspondence in *The Times* with a good deal of interest, but I am somewhat prejudiced against the whole idea. I have always taken a deep interest in London and its streets. Any building which is erected in London, or anything which alters the configuration of any part of it, I watch with interest, and it is always a delight to me to see what is going on. But I recognise that to-night I am sitting in the presence of distinguished men, who know much more about these things than I do. I find difference among architects themselves as to heights of buildings ; yet naturally we laymen look to the members of your profession to give us a lead on the subject. The majority of foreigners are immensely impressed and surprised with the lowness of our buildings, and I think they are delighted and interested at the fact that we have restrained ourselves and that we have not erected towering buildings such as there are in foreign countries, especially in America. That has been our deliberate intention, operating back through many centuries, and therefore it would be a very serious thing to alter that state of affairs. But I think Mr. Delissa Joseph, in his well thought out paper, has made out a very good case upon which to discuss the matter,

especially on open space frontages such as Lincoln's Inn Fields, the parks and the River, where buildings could go to a greater height than now. The land in London is becoming more and more valuable as time goes on. For instance, we have a charity in Hammersmith which used to bring in an income of £17 a year from certain fields, and the land is now bringing in between £8,000 and £9,000 a year ; and there is no doubt that process is going on in many places to-day. Therefore we should take this question into consideration here and now.

I followed with interest Mr. Delissa Joseph's remarks in regard to ancient lights. I recollect Mr. Hankey ; he was a client of my own, and a very persistent man. He was a good client from the professional point of view, but he worried one's life out ; he sat on the doorstep and was continually asking how his cases were going on, and he fought the rating authorities, the Post Office and everybody. He on one occasion fought the Post Office to a standstill. He insisted on giving to a certain road a different name from what it had been known by ; he was determined the street should be called by another name, as he said it would improve the value of the property. The Post Office people said the street should continue with the name it had borne ; but Hankey provided the people living in the street with headed notepaper free, and so the Post Office authorities had to deliver the letters, and there were so many hundreds of them that they had to capitulate.

In 1894 the case of "Colls v. The Home and Colonial" caused a revolution, and there is no doubt it has been responsible for more damaged buildings and bad architecture than any other case. I remember we were acting for Brown's Hotel, a quiet hotel in Dover Street, and we stopped the building of a ladies' club opposite. They had a capital design, but we spoilt it. We shaved off the front of their building, and you see the thing going back, with a quarter of its façade gone.

BUILDING HEIGHTS AND ANCIENT LIGHTS

Mr. Delissa Joseph evidently dislikes the law; he seems to have a deep-seated antipathy to lawyers, because he harps so much upon arbitration. But I think his scheme of arbitration is somewhat complicated. You appoint two architects, then an umpire, then another umpire, and if they do not agree, another. And, in the long run, it often comes about that you have to go to the High Court. I do not mind; I do not think it will decrease the profits of my profession, but I am doubtful whether it is not better to keep as far as possible to the Courts rather than to these amateur courts which are set up, for I think your professional courts result, in the long run, in more inconvenience than going straight ahead with a writ or an injunction in the ordinary way. I may be prejudiced on the other side; perhaps I am, but in practice I have found that is the best way.

Mr. Joseph has slated the Building Act of 1894, but I think that is a great charter. True, it wants altering now, but it has done a great deal for London in an honest attempt to settle many difficult questions. While I agree that the law on the matter wants codifying and putting into order, I do not think it is fair to say it was a bad Act of Parliament. Having regard to the position of things as they were, and the general condition of affairs, that Act has worn fairly well, and I think there are many good points in it. But I also agree with Mr. Joseph that the time has come when we must adapt it to present conditions. I remember Fletcher Moulton's Act in 1903. Mr. Delissa Joseph wonders what became of it. Well, it was like so many other Acts of Parliament, it was stillborn. It was a private Bill, and at that time all Bills brought forward were read a first time, the principle being that the House considered that the author of any Bill should at least have a run for his money, and for many years such Bills had "a first hearing" as a matter of course. If the Government of the day did not think it worth while to take any particular Bill up, it died.

The subject of ancient lights is a difficult one, and I never can make up my mind as to what property people can acquire in light and air. It is a question of the other man being lucky enough to get his house up first, and whether by doing so he has a right to the light and air of the fields and meadows all round; whether he can prevent his neighbours putting up buildings inside "his angle," as it is called. If a man puts up a house in the middle of a field, has he rights over other people who, for some reason, did not put up their house at the same moment? Has the man a claim to priority as to light because he put up his house first?

I hope a satisfactory solution of this question of height may be arrived at; and that the architects here present will arrive at a conclusion which will be useful and instructive.

Sir SYDNEY SKINNER, J.P. (Chairman of Messrs. John Barker and Co.), in seconding the vote of thanks,

said: Mr. Delissa Joseph's paper relates to the present law relative to certain matters, and the past attempts which have been made to alter the law by different bodies. The technical detail is very involved, and I am sure the architects present will forgive me if I do not attempt to deal with it. The type of building I have in mind to meet the requirements of my own trade and my own particular firm, which, as you know, is a large distributing firm, is a store building, and the points I would like to have considered by your profession are the height, certain architectural features inside and out, and the floor areas for the accommodation of fittings in the different departments. I should leave it to architects, of course, to provide the most suitable design and construction, and meet all fire requirements in accordance with the law. I recently paid a visit to America, and I spent nearly three months there in looking over various buildings, chiefly those connected with the distributing trades. I am not at all concerned with "sky-scrappers," and I do not know that I want to see sky-scrappers in London; but I can conceive of no difficulty in having buildings of a reasonable height, say 125 feet, on wide thoroughfares. We are concerned with laying out a building, as we conceive it, which would meet the needs of the public and be an infinitely safer place for people to shop in. We want big open floors for our business. You can go through store after store in America, and directly you enter the front door of the building you see before you a big open vista. Sometimes those buildings go down two, sometimes three, floors in the basement, and some of them go up to fourteen storeys in height. They are connected, at each end of the building, by big batteries of lifts, and one floor is easily accessible from every other. The kind of building I have in mind is one in which the floor space is not divided up. These buildings are generally 200 to 250 feet in width and 200 feet in depth, and they have an open uninterrupted area from one end of the building to the other, and the departments, as arranged, are much more accessible to the public than in our own buildings. In a very few buildings they have a well, but they are not very fond of wells in America, and some of the buildings are having them closed up. I admit the public authorities in this country are prepared to give an open vista to a greater extent than formerly, and in order to get this open vista one must have a building in which the floor must be a certain height, otherwise it would seem to partake of the nature of a tunnel. So you can conceive that when a firm have to give a very high price, as they do when they erect a building in the City, either by lease or purchase, for a plot of land, they want to be allowed to build to a greater height than 80 feet. Otherwise the floor space is very considerably limited, or you have a narrow height in which goods will not show to advantage. I take it that the London

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Building Act was framed at a time when the lighting arrangements were not nearly so good as they are to-day. We should not be so much concerned, in the modern building as I conceive it, with lighting, because artificial light is an excellent thing in its way, and it illuminates a building more reliably and evenly than the half-subdued light you get in London for such a large part of the year. We have now the means of giving all sorts of colour effects to the various goods we display, which can be done better than in a natural light. If we have a building limited to 80 feet in height, we have a building which is limited to a few floors, and I cannot see why the maximum height should not be raised from 80 to 100 feet, or even to 125 feet where possible, and under suitable conditions. I do not altogether agree with Mr. Delissa Joseph in regard to the height of buildings in relation to the width of the street they face. Personally, I do not want to see these narrow streets in London with high buildings, and I think that if Mr. Delissa Joseph would eliminate that side of his argument and confine himself to trying to get concessions from the public authorities with regard to buildings on, as I conceive them, sensible lines, and buildings to greater heights on suitable sites, he might succeed. I ask you to lend your support to that point of view. I am also confronted with public authorities, and the only argument of weight is in regard to provision against fire. I am told that the London County Council have not the apparatus to fight fire at more than a given distance. I do not know how that difficulty is got over in America, but undoubtedly it is got over. The buildings there are built with fire-proof floors, and, in my opinion, if a panic were to take place in an American building on account of fire it would be infinitely easier to empty that building than to empty one of similar purpose here, built under the present Building Act. The great fear of fire is one which is obviously present in everybody's mind, and one of the results of fire is panic, brought about largely by the unknown. If the building in which a fire occurs is one in which you can see right down the centre, the panic is not likely to be so intense as when people have the feeling that they are shut up in a room, and they do not see the way directly out into the open. I think that in the recent rebuilding of Regent Street a fine opportunity has been lost. I do not know why the buildings there have been limited in height, but, in my opinion, they would have been infinitely finer buildings if the architect had been given larger scope. The buildings, I suppose, are going to stand for at least 80 to 100 years, and that particular street is now stereotyped for that time. Higher buildings would have made of it a much finer street, and you would have had buildings which would not only have attracted the resident population of London, but would have also attracted people from other countries, a thing we traders are very

keen about. We want to make London very attractive, we want to make it a great trading city, and we want permission to put up buildings which are suitable for our trade. We are out to fight Paris, if we can. Paris has a type of store building which we do not want, and we are not asking for that kind. I believe the difficulty in regard to fire, which is the only tangible one which has been advanced, the only one which has made any impression upon me, can be overcome, and should be overcome. I would ask you to take this matter seriously into consideration, to see if you cannot come to some agreement and present a case to the London County Council that will permit of the erection of buildings such as we require, and buildings of added beauty to the City of London.

I have very great pleasure in seconding the vote of thanks to Mr. Delissa Joseph.

Professor BERESFORD PITE [F.] : I am sure it has been a pleasure to hear this lucid and interesting review from Mr. Delissa Joseph on his aspect of the subject. We find a certain stimulus in light and air cases; they introduce a pleasant pugnacity into the office, and I do not know that I am betraying any secrets which I should not when I say that we find them remunerative. And where a brother architect is advancing pretensions towards the sky, he bestows remuneration upon a number of architects who prevent him soaring so high. We all suffer from the malignant outlook of these disreputable windows which domineer the sky, and hide, perhaps, some unlucky basement resident, screening the bedroom of some solitary tenement, perhaps poor and miserable. And, generally, we feel that the poor must be sacrificed to the rich ; the lowly must give way to the lofty, the basement must be sacrificed to the altitude of the intending builder. But I think that in a general review of the question there is no denying the fact that this very uncomfortable and distressing law of light and air has preserved for the dwellers in London as a whole, in the poorer parts and in the very narrow streets, an amount of light and of air which it is well to record and well to indicate as a blessing attaching to this unhappy duty of our profession. Sir William Bull interests us in Hankey and his "folly," but if Mr. Delissa Joseph had his way there would be another folly, Delissa Joseph's "folly," on the opposite side of Petty France. What will Westminster be worth if this higher building movement is to be extended everywhere in the interests of millionaires, to put it mildly ? I do not want to be impracticable, or obstructive, or needlessly pessimistic about this question, but I would also like to enter this caveat against the buildings of the all-powerful millionaire dominating the poorer tenants of humbler dwellings. We will grant, as Sir William Bull grants, that an open site facing the river or a park might have a building as high as the Tower of Babel, on the front ; no architect would object to that. We want no coaxing on that ques-

BUILDING HEIGHTS AND ANCIENT LIGHTS

tion at all. The bait is irresistible, the opportunity for the flight of the imagination upwards would be taken. But we are bound to consider the fact that the front and the open site has a back and a side which are not open. I will grant Mr. Delissa Joseph everything his heart can wish if he will practise it on an island site wholly owned by his client. Why not emulate Selfridge; secure your site, and be at liberty? Why should you claim that on one side of an enclosed site you can go up to heaven and put into shadow everybody who is behind you? That is unreasonable, and all the attractions of building high in front are nullified if you forget that behind that front is the back, and it is the back which the city cares about practically, more than any artistic effect of the front. So, granted an island site surrounded with a thoroughfare of sufficient width in relation to his proposed height up to heaven, I will give Mr. Delissa Joseph my heartiest blessing, withdraw my wrath against his *Times* correspondence on this subject, and say "Go on and prosper, provided you keep your height relative to the width of the streets by which you are surrounded."

Regent Street has been referred to. Until it was recently destroyed, it was the pleasantest, best lighted, sunniest street in London. That has gone. Why was it so good? The width of the street was 90 feet, the height of the buildings was 45 feet, and the street had a character of pleasantness which made it the premier shopping street in London. The pressure of events has forced buildings there to the height of 80 feet, the height fixed as a limit by the Building Act of 1894. Sir Sydney Skinner wondered why that street has been spoilt by that limit of 80 feet. Behind Regent Street there is a little street called Regency Street, on the east side, running at a very short distance from the front, and others continue down. So your height of 80 feet in Regent Street is not attainable at the back; there is a congested area. When Regent Street was laid out as a street a hundred years ago, it was cut through the slums of Soho. There is Foubert's Place and its butcher's shop still left, so you cannot unduly prolong or extend the height of your front without affecting these narrow streets at the back. London, by its antiquity, is a network of narrow streets; and if we listen with unguarded ears to the wisdom of Mr. Delissa Joseph, we shall have the difficulties of living and working in London enlarged and increased rather than diminished. The remedy must be found elsewhere. With its enormous increase in population London is bound to extend. The increased facilities for traffic are already shifting the marketing and shopping centres to relative distances around London, to Kensington, Brixton, Peckham, which are becoming large centres themselves. The need for increased height generally in London is not approved here. The eagerness and anxiety, I had almost said the greed, of certain landowners to extend their buildings

upwards at the cost of the citizens is manifest; and it is against this that the Institute, charged with care for the public health and amenities of the population, protests. I take pleasure in the skill with which Mr. Joseph continually brings back this question, for he knows that while he is charming the world outside, we are unaffected. He has led the red herring of ancient lights skilfully across our path, but it is thoroughly stale and only excites the most hungry of appetites. I beg to tender my thanks to him for the interest he still maintains in the subject.

Mr. KEEN, the Honorary Secretary, said letters regretting their inability to be present had been received from Lord Ashfield, Lord Waring, Lord Bethell, Sir James Boyton, Mr. T. H. Maugham, K.C., and Dr. Mitchell Bruce. The following memorandum had been received from Mr. RAYMOND UNWIN:

The conclusive reason why London should avoid high buildings is that there is nothing to be gained by it. Any advantage which an individual owner of a building plot or a building can derive from increasing the height of his building is directly obtained at the expense of the public, who must suffer all the inconvenience and delay of the increased congestion of traffic, and must find the money to widen the streets to mitigate that increased congestion. The London streets are barely wide enough—in many places they are not nearly wide enough—to accommodate the traffic due to the present height of buildings. If that average height in any area is doubled, it is certain that the traffic will be at least doubled, and probably increased more. Hence to maintain no greater traffic congestion, the width of the streets ought to be doubled concurrently with the doubling of the height of the buildings. If this were carried out, the reduction of the area of the building blocks would be so great that any advantage in the total volume of the building owing to the increased height, would be largely offset by the fact that the total area on which to build would be very greatly reduced. In England, so far, we have only had to meet the outer fringe of the motor car problem. In America the number of motor cars to population is now more than one to every ten people in the whole country. There are twelve million motor cars in the United States. In this country there are only about 500,000. It is clear, therefore, that we must expect an enormous increase in the number of motor cars in this country. America has not even reached its saturation point, and is making cars at the rate of a half a million per month. Owing to the great average height of the buildings, not only in New York but in many other cities, combined with the number of motor cars per 100 persons, street area that would be required to give reasonable facilities for the owners of cars is quite impossible to provide, and the advantages of owning a car in New York are rapidly diminishing. It is only necessary to take such an example as the Woolworth Build-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

ing. It is occupied by 14,000 people in the daytime, and if we were to take the normal proportion of cars, the 1,400 car owners might reasonably wish to have their cars waiting to take them home in the evening. This would involve a continuous queue of cars five miles long to serve this one building. Anybody who has seen the traffic conditions in New York, with its enormous street area and many hundred feet wide roads, and who has realised the extent to which the private motor car may be adopted, cannot but realise that any increase at all on the average height of buildings in London must lead to the most serious congestion and to the necessity for a lavish outlay on road widenings.

People in this country usually imagine that New York consists of Manhattan Island, and that therefore something in the way of area covered by the city is gained by the high buildings. On the contrary, about a quarter only of New York inhabits Manhattan Island, and three-quarters the surrounding area. It is only necessary to take a few journeys to the suburbs of New York, or to inscribe on scale maps circles at a five and ten mile radius from the centre, to realise that even in the matter of space covered, there appears to be little if any gain from the adoption of high buildings.

There is any number of other disadvantages, less ponderable but perhaps really more important. Nevertheless, the conclusive reason which has brought about a curtailment of the height of buildings all over America, and which will put a stop to it in London if London is foolish enough to attempt to copy America's outworn practice, is that the higher building increases the concentration of traffic, requires wider roads, reduces the area available for the buildings to stand on, and in the end has no substantial advantage of any kind to show.

Mr. W. R. DAVIDGE [F.] : We have the advantage of having with us this evening a distinguished architect from New York, and I hope that before the evening is out he will have an opportunity of telling us his New York experience and what they think there on the subject of high buildings. I understand Mr. Joseph has not yet had the opportunity of visiting New York, and I hope he will do so before long.

I feel great sympathy with the point of view which has been put before us by Sir Sydney Skinner, and the delightfully humorous speech of Sir William Bull. I think this challenging attitude in people's faces, which he showed us, gets at the bottom of the question of light and air. I can hardly believe that Mr. Delissa Joseph, after living forty years in the glare of ancient lights, is anxious to destroy his source of livelihood. This law of ancient lights has, to some extent, been an advantage. Mr. Joseph is wrong when he refers back to the time of Richard I. As a matter of fact that particular Act of 1189 (known as Fitzalwyn's Assize) particularly said that no right of ancient light should be acquired ; there should be no right against the neighbour. And that Act

was not only the first Building Act of London, but it was the first Act which said that ancient lights shall not be acquired. That is contrary to Mr. Joseph's interpretation.

Another point which should be nailed to the counter now, I think—and I hope our American friend will nail it to the counter—is the definition Mr. Joseph gives of "skyscraper." He gives a diagram of a building of 80 feet, another of 150 feet, and another of 600 feet, and he says the last is a skyscraper, the others are not. If that is so, there are only four skyscrapers in the world. I think Mr. Joseph can hardly be serious in this. We all admire Mr. Joseph's pertinacity in giving us this subject continually, and I admire the choice of words in which he urged the necessity of increasing the height of buildings to increase their dignity and importance. Personally I think that when it comes to certain buildings it is not a question of their dignity and importance so much as dignity and—certain words sometimes related to that, but not importance.

I feel we can do much to influence or ease the position of storekeepers ; theirs is a genuine case which, in the matter of cubical extent, we could do much to meet, and I hope the Institute will not shut its eyes to that possibility, remembering that London must not be spoilt for the benefit of any particular section of the community. Stow speaks in his *Chronicle* of what happened to people who tried to build excessively high buildings. The first case referred to a man who built a high tower to overlook his neighbours ; but he had no sooner built his tower than he was smitten with blindness. Another was a merchant tailor in the City, who built a tall building so that might have the privilege of overlooking his neighbours, and he was so severely smitten with the gout that he could not climb to the top of the building to look out. That shows that even in those days there was a constant fight between ordinary decent people and those who wanted to steal a march on their neighbours ; and that is continually going on. It should be realised that architects want to work with the commercial element, to give commercial people what they want, but perhaps in a slightly different form to that suggested by the lecturer. What they want is not excessive height but a reasonable height combined with a reasonable cube, and if that could be secured, we should find that, after all, Mr. Delissa Joseph had rendered a service to the profession by his persistency in bringing up this time-honoured and rather time-worn subject.

I have much pleasure in joining my thanks to those of the proposer and seconder, and congratulating Mr. Joseph on a very interesting summary, especially in regard to the law concerning ancient lights.

Mr. W. W. SCOTT-MONCRIEFF [F.] : It seems, from the paper and from the discussion which we have just heard, that there is a comic element in them. Someone started the idea some time ago—I believe it was a

BUILDING HEIGHTS AND ANCIENT LIGHTS

politician—that one could get 9d. for 4d., and the cry has been so often repeated that most of us feel that we really can get 9d. for 4d. If the area of the City of London is taken as two square miles, and if the population within that area is liable to be increased by, say roughly, one-quarter, by some such precedent as Mr. Delissa Joseph would create, we should find ourselves involved in very serious traffic problems. There was the case two or three months ago of Holborn being "up," and it was extraordinary to see the complicated engines of war which were brought up to relay that thoroughfare. If the already too densely populated area of London is to have its population increased the problems arising will be very serious, and the most serious of all will be the street traffic problem. We cannot hurl hundreds of thousands of tons and hundreds of thousands of people at high speeds along the roads without having to pay dearly, and if the roads are made of concrete what is spared to the roads will not be spared in tyres and wear and tear on engines. There must be a balance in these things beyond which we cannot go. It is impossible to get 9d. for 4d.

We are all agreed that London must expand, but London is the only city I can think of at the moment which has been decently developed upon one side of its river only. We have a magnificent river, yet nearly all the fine buildings are on the north side of it. It is surely reasonable to suppose that we can develop the south side of London with no more difficulty than we should meet with in carrying out the elaborate proposals to secure so-called "skyscrapers." If there were a fine embankment to the south side of London, many Londoners would be able to see their city from a point of view they had never seen it from before. They would be able to see it looking towards the north, that is to say, with the sun shining on it. As it is we look from the north side towards the south and we consequently see the gloomy side of gloomy-looking warehouses.

I thought that Mr. Joseph dealt rather lightly with the objections which he mentioned—unhealthiness, unsightliness and danger from fire. He made the amusing comment that it had always been man's ambition to build upwards, and to support this he quoted the instance of churches. But it would not be a popular move to keep shops on the tops of churches or for someone to establish himself in a flat on the top of the dome of St. Paul's.

With regard to what he said about benefiting the rates, surely the rating authorities should not aim at making profits. Rates should be levied according to services rendered.

Sir Sydney Skinner spoke about New York, and he seemed to take it for granted that we all want to have "stores" on the New York principle. I am not so sure that this is so. We got on very well without them before

we fell in love with America. Professor Lethaby once used the brilliant remark, "It is like fattening the white elephant." I think this is what we should be doing if we tried to crowd great masses into small spaces.

Professor S. D. ADSHEAD [F.] : Mr. Delissa Joseph has been complimented on his pugnacity and on his persistence, and I would like to compliment him on his pertinacity in bringing up this question.

There is one point which, I think, has not received the consideration it deserves, and that is, the relation between the height of buildings and the width of streets. We have had a forecast of what the Committee on the Building By-laws is going to give us, and mention was made of the relation between the width of the streets and the heights of the buildings ; but beyond that, there has been no real reference to the very great importance which should be attached to the width of street compared with building heights. Professor Beresford Pite has referred to Regent Street as an instance of great importance. There is another point. You must not look at intricate questions of 80 feet, 120 feet, etc. The whole question we have to consider is that of the man in the street : are we going to increase the height of buildings in London, or are we not ? Another point is with reference to the fact that the 80 feet allowed in London is higher than is allowed for buildings in Paris and Berlin, both cities farther south than London. To compare London with New York is beside the question. London is in the same latitude as New York, and when we find New York has come down from 600 feet to 250 feet, why do we want to go from 80 to 120 feet, in a worse atmosphere ? These few points should, I think, be thought of, together with the increase in transport and the greater ease of the spread in the case of London. The question which is running in the minds of all town-planners with regard to the dispersion of London is that Kensington, Brixton and other areas are gaining enormous importance at the expense of Regent Street. It is to the good of the general public. I think we can agree that we want a new kind of store, one with higher storeys, and I should have liked to hear Mr. Joseph's views as to why we should not extend the stores laterally, say, have four storeys instead of ten, and carry them farther along the street. He would no doubt tell us the cost of the site is too great. I understand the cost of sites in New York as compared with those in London is as gold is to silver ; that whereas in the case of sites at the Bank of England you could lay half-crowns along to cover the cost, in New York, in Wall Street, you would have to lay sovereigns. The paper has been very valuable, full of detail ; but do not let us lose sight of the general question.

The PRESIDENT : Mr. Bossom has been spoken of to-night as an American. He is not an American, he is

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

an Englishman who has escaped, and he will tell you what the result of his escape has been. But his name is beginning to be very well known in connection with the generous offer he made in relation to the encouragement of studies for young men.

Mr. ALFRED C. BOSSOM : I started, as some of my friends know, as a student here, and about twenty years ago I went to the other side and started my practice. Very quickly I decided to concentrate upon commercial architecture, and from that time I have been designing tall buildings of various kinds all over the country.

The experience of America in these large buildings is not what has usually been assumed to be the case. At first everyone tried to build these great buildings without particular regard to their fitness as to location or appropriateness of requirements, but now that the subject is getting more thoroughly understood, there is practically a national wave of sentiment to regulate them, both as to use and height. This has brought about what is known as the zoning law which is becoming, with the necessary variations, universal, and it is, without exception, reducing and limiting the height of the buildings to be erected. In New York, for example, tall buildings have been practically confined to the three main arteries and though formerly they were carried to any height, to-day along Fifth Avenue facing Central Park, they are limited to a height of six storeys and below this point on Fifth Avenue they are limited to nine storeys unless the building is set back from the building line, or only twenty-five per cent. of the area of the property be carried up which may extend beyond this nine storey restriction. I believe to-day if the architects of New York were to vote, there would be a great majority in favour of entirely abandoning the exceedingly tall buildings, and actually the only reason why some of these mammoths are put up to-day is due to the colossal amount of advertising they create for their owners.

The Singer Building for the Singer Sewing Machine Company was, I believe, the first one to demonstrate this advertising value for the tremendously tall structure, and the rumour is that this advertising enabled the owners during the first year after the building was completed, to sell enough machines in China alone to pay the cost of the building. The Woolworth Building, for the owner of the Woolworth stores, obtains for that company free publicity and advertising in every country of the world continuously. I had the opportunity of putting up a building 450 feet high, literally out on the plains of Texas, which is fully double the height, I believe, of any other building within a radius of 500 miles, which shows obviously there was no vital need for such a tremendously tall building, but its advertising value justified the owners in adopting this course. I do not

know of one of these great buildings that, if it were turned upon its side, would not reach into districts where all the buildings are only two and three storeys high. In fact it is estimated that 97 per cent. of New York is covered with buildings three storeys high. A tall building is naturally very spectacular, and although beneficial from this point of view to its owner, it is often quite detrimental to adjacent property owners by unduly congesting the locality without any respect to an even distribution of people ; for instance, there are about 14,000 persons in one structure in New York, and the very great majority of these tenants or their employees own automobiles, for you can purchase a Ford car in the States for £60, with practically no tax beyond this. Well, if these motor-car owners should decide to have their cars come to meet them, as a great many do, the line of motors for this one building would be over five miles long. During the luncheon hours the rush of people in and out of this one building makes it almost impossible to walk on the pavement, and actually on lower Fifth Avenue this condition became so bad that regulations had to be made to prevent these buildings being used for the purposes for which they actually were built, as it was absolutely impossible to pass up and down during the time that the employees were out to luncheon ; it was, in fact, these conditions that first caused the zoning law movement to take form.

An effort is now being made to spread the population rather than to concentrate it, and this is not so difficult with the grid-iron plan of city lay-out which is used in the States, but in London it would be practically impossible, if you once started tall buildings, with the narrow curving streets, to regulate the situation with any degree of equity to all property owners.

Of course no possible objection would be raised to reasonably high buildings along the Embankment, but in very few other streets—one block behind the main thoroughfare, you will be upon very narrow streets with low buildings. Would it not be better, if it is desired to get a large floor area facing the main thoroughfares, to keep the general building height about as now regulated here, but carry it back and cover more property with it, and thus secure better light and air for everyone and a much more even distribution of the people ?

Communities should be spread, not concentrated, otherwise congestion cannot be avoided, and even though you widen your streets, if you allow tall buildings to be erected, you are going to repeat and cause congestion again immediately these widened streets are built up again. In the States every regulation that has been made regarding tall buildings, as I suggested before, has been either to limit or, in the great majority of cases, absolutely prevent the thoughtless development of enormous buildings.

Another cause that is not known here, I believe, why

BUILDING HEIGHTS AND ANCIENT LIGHTS

many tall buildings have been erected in the States outside the big cities, is due to the fact that there is usually a bank situated on the ground floor, and I have had the good fortune of handling a considerable number of these, and I have found from my own experience that in these cases all the tenants of the building keep their accounts with the bank, and this makes the investment very profitable, and a great many bankers feel that to have the tallest building in their particular city or State creates a position for them and a distinction that could not be obtained by other means, and statistics have demonstrated in their case the accuracy of their judgment. The Woolworth Building was an advertisement for five and ten cent stores ; the Singer Building for sewing machines ; the Bankers' Trust Company, which has been named the Tower of Strength, is known the world over on account of their travellers' cheques ; the Metropolitan Tower advertises the insurance business ; the Magnolia Building, the oil business ; and these are the reasons that have controlled the development of a great many of the buildings, and not the direct financial returns.

For instance, in New York, any height that you go above 32 storeys on a large piece of property becomes unprofitable ; all tenants have to be served with elevators or lifts, and it is easily seen, if one calculates, that one elevator travelling at a vertical speed of 600 feet a minute, and having a car surface of 6 feet by 6 feet will carry only enough passengers for about 20,000 square feet of office space, and it must be realised that this elevator has to travel up through all of the lower storeys before it reaches the floors which it will relatively serve, thus you take away from all the lower floors to provide for the top ones, which does away with all the profit out of the situation if the upper ones are too far from the ground.

Frankly, we are all making a great effort to spread our people and to do away with the concentration of all our big buildings in one spot, and there is no doubt in my mind, after twenty years' experience with this actual type of building, that if you start the tall structures in London you will regret it, and I am sure the majority in the States would prefer not to have them even there if it were to be all started anew.

The PRESIDENT : Mr. Delissa Joseph has certainly had paid to him to-night the compliment of a free expression of opinion. No doubt he expected we should express our views on the subject ; but I join with those who complimented him on putting his case—if I may so call it—very clearly, on giving the history of the growth of higher buildings in a clear manner, and also on making a useful exposition on the subject of light and air, a subject on which I could address this audience at great length, but I do not propose to do so to-night.

I now put the vote of thanks, which I am sure you will receive heartily.

The vote was carried by acclamation.

Mr. DELISSA JOSEPH (in reply) : I am very grateful to you for the vote of thanks which you have accorded to me, and I am particularly pleased at the manner in which it has been presented. To have a vote of thanks offered by my old and valued friend Sir William Bull, and to have it seconded by my new and valued friend Sir Sydney Skinner, and to have my paper so genially and so pleasantly discussed as it has been by the successive speakers, has fully rewarded me for the amount of work I have had in preparing it. Perhaps the only disappointment I have had is that not quite so much emphasis has been laid on ancient lights as I had hoped, a matter not of less interest, though it may be of less immediate concern, than high buildings. I was very much interested in the remarks of Mr. Bossom, of New York. But we must not forget that, after all, he has had the great privilege and satisfaction of designing the tallest buildings in the surrounding States, and therefore he can look upon the subject with a more detached mind than we can !

It would be impossible for me, and you would not desire that I should at this late hour, deal in detail with the observations which have been made. The only part which hurt me a little was that contributed by Mr. Raymond Unwin. I feel that if he had so much to say he should have come here and said it, so that I could have answered him. He has seized my title for a paper next Session, and I should have been glad to meet him on that. The kind of reasoning he employs might be called the *reductio ad absurdum* in terms of motor cars.

The following contribution to the discussion was sent by Mr P. J. WALDRAM, F.S.I., Licentiate :

The author greatly restricts his argument that high buildings are not unhealthy by exempting those which have interior courts. But are not light wells the crux of the whole question, both monetarily and hygienically ? The efficient lighting of any side-lit room, whatever the obstruction to its windows, is limited by the relation of its height to its depth ; so that unless habitable rooms are to depend upon artificial light all day, which is unthinkable from any point of view, legislative or economic light wells become inevitable.

It cannot seriously be contended that rooms which depend upon the meagre light wells permitted by Section 45 of the London Building Act are adequately lit for more than about three storeys down from the parapet. Under the present limits of height we can have, say, seven storeys between the pavement and the parapet. Of these the ground floor would probably be extended under the light well and would have valuable top light. The first floor would probably be lofty, which somewhat mitigates the evils of well lighting. But the second, third, and possibly the fourth floor rooms depending on light wells would all probably receive very little light, less ventilation, and no sun.

Unless the limiting dimensions of light wells are to be reduced below even this limit, their consumption of valuable floor space renders additional storeys too expensive to build. To avoid this difficulty it is apparently suggested

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

that light wells of the statutory dimensions should be compulsory only for "domestic" rooms. The "habitable" rooms of the existing Act can, however, be a useful check on the requirements of clients who desire to secure the very last foot of floor space, well knowing that there will always be found tenants ready to rent suites of offices with well lit front rooms, even if they have to relegate their clerks and typists to dismal back rooms.

If deep light wells have to be constructed, and they are often essential even with the present limits of height, would it not be an improvement on the customary well of uniform section to reduce the size on the lower and more valuable floors by a series of steps, keeping everything within the angle which is secured by the present Act? Top lights in the flats of the steps would be far more valuable to the lighting of the lower floors than the side windows which would be lost owing to the restricted perimeter of the walls of the well. Such a construction would, of course, have been almost impossible with the ordinary brick walls contemplated by the Act, owing to structural complications; but with modern steel frame construction the difficulties would be negligible. The Act is, I think, usually administered with broad-minded common sense; and, pending its revision, there should be no difficulty in securing consent for a modification which would secure better lighting and healthier rooms than would be obtained by strict adherence to the letter of the clause.

The method of measuring and calculating the standards of daylight, for which the author kindly gives me the credit, is one which I merely brought to fruition some twelve years ago. I had been anticipated by Mr. A. P. Trotter, late Chief Electrical Adviser to the Board of Trade, in formulating the now accepted theory of daylight illumination; and in developing it I was indebted to him for much valuable assistance.

The general principle that the natural illumination of interiors can be regarded, and can only be regarded, in its fixed and measurable relation to the outside sky brightness which gives birth to it was also the logical result of the work of earlier investigators in all countries, who had been trying for some years to define and measure daylight for schools and factories; notably Dr. Basquin in America, Professor Weber and Dr. Coln at Kiel, Dr. Thorner, Dr. Pleier, and many others; whose efforts only failed because they had failed to appreciate and to allow for the unsuspected inaccuracies of the human eye.

This basic theory is now, I believe, accepted by all authorities on the subject. It has been used for years by the Home Office in factory inspection; it has been adopted and is used exclusively at the National Physical Laboratory, Acton, where a building has been specially designed and erected for investigating the more intricate problems of diffused light. This building was described in the JOURNAL of this Institute last year.* Measurements based on it have also been accepted in ancient light cases, where nothing but straightforward and self-evident common sense has any chance of recognition. Further developments of it have now extended the mere measurement of the daylight illumination from given windows, for comparison with ascertained standards of lighting, to the more or less exact predetermination of the light in buildings which exist only on paper.

* See JOURNAL, p. 624, vol. xxix.

Given complete drawings and exact particulars of outside obstructions it is now possible to predict with considerable accuracy the light which may be expected at any point in an interior; in fact, one can even use the predicted results as a check on the accuracy of the drawings supplied in ancient light cases.

It is necessary to mention these points because the reference in the paper to this important principle, which has raised the question of natural lighting from the unsatisfactory level of mere guesswork which is often seriously at fault almost to that of an exact science, makes it appear to be a mere effort of my own, and therefore of small importance.

It should perhaps be mentioned that the 1 per cent. sill ratio to which the author refers is the generous minimum which obtains in the exceptionally well lit classrooms of new public elementary schools constructed in accordance with the rules of the Board of Education—probably the best side-lit rooms in common use. The "grumble point" of adults for ordinary clerical work is less than half this standard—viz., about 0·4 per cent., as quoted in the judgment of the case cited by the author, Semon v. Bradford Corporation. The author contends that this judgment proves that buildings 50 per cent. higher than the width of street are now legally harmless. This is, I suggest, inaccurate. Reference to the judgment (reported in the *Architects' Journal* of 14 June 1922) will show that this was the case of a large open warehouse with windows nearly all round, of which six faced the street in which the building complained of was to be erected. Of these six, four faced an open road, and the building was practically invisible from them. Only two were opposite the defendants' building. A fact that does not appear in the judgment is that these two windows lighted only a shallow angle of the plaintiff's building. Expert evidence for the defendants, in fact, admitted frankly that if the plaintiff's building had been deeper opposite to these two windows, it would have been damaged. The judgment gives no legal precedent whatever that an obstruction of $56\frac{1}{2}^\circ$ —viz., one and a half times the width of the street—is harmless unless the plaintiff is left, as in this case, with adequate light.

The author also complains that this judgment destroys a common practice of calling 50° innocuous, and, therefore, leaves the position uncertain. I suggest that it is quite time that the absurd criterion of any one fixed angle for all cases were replaced by the eminently fair view that if a plaintiff has sufficient light left, from whatever source, he has nothing to complain about.

Mr. C. LOVETT GILL [F.] addressed the following letter to the Chairman :

DEAR SIR,—I am very sorry I shall be unable to attend Mr. Delissa Joseph's Paper to-night on "Building Heights and Ancient Lights," but I should be glad if it is convenient, and an opportunity occurs, that this letter be read at the meeting.

As a general remark I would say that I am not in sympathy with higher building for London, as in the majority of cases we are UNABLE to go to the statutory height now allowed under the London Building Act, of 80 feet, with the addition of two storeys in the roof. There would be no case made out for higher building if the law relating to light and air could be amended. It is characteristic of the

THE SURVEY OF LONDON

English temperament to cling to past methods. Ancient lights do not exist in the United States, Scotland or Ireland, although the Prescription Act of 1832 did apply to Ireland. Mr. R. M. Butler, the well-known architect in Dublin, informs me that he has never known of a case. The reason why such an immense number of buildings remains unaltered and not rebuilt to-day is the controlling influence of surrounding ancient lights, and with this restriction removed an immense impetus would be given to the building world and there would be few unemployed architects.

It seems rather a Utopian idea to imagine that the Prescription Act could be repealed at once : we therefore come to what method, if any, could be advocated and assisted by the Royal Institute of British Architects at the moment. The question of building heights and ancient lights is one that the Institute should place first of all on their programme to examine into what relief could be obtained to the existing conditions of the Ancient Light question.

I put forward the following suggestion, that the Institute would approach the subject with a view to getting the necessary laws passed that all buildings facing streets 60 feet wide and over could be built to the statutory height of

80 feet ; the 60 feet width would give an angle across the street of 53° from building line at pavement level ; this would be fair and reasonable to all owners of property in the street and a great benefit to practising architects, as the height of frontage would be settled and there would be no opposite owners to be consulted.

If this could be achieved it would result not only in giving the building owners a better return on their outlay, but it would touch the fundamental principle of the Royal Institute of British Architects that it exists for the "decoration of the City." The result would be a vast improvement in the architectural aspect in the main streets of London (and perhaps the provincial towns) and give an impulse to building generally that we have not had before.

Architects of recent years have been endeavouring to help one another in the question of these ancient lights, and in Old Broad Street, opposite owners have agreed, so far as they are concerned, to do away with the question of ancient light, and each side to build in accordance with the by-laws.

To leave the Building Act as it stands and concentrate on some alteration to the Prescription Act is what architects require to-day.

The Survey of London

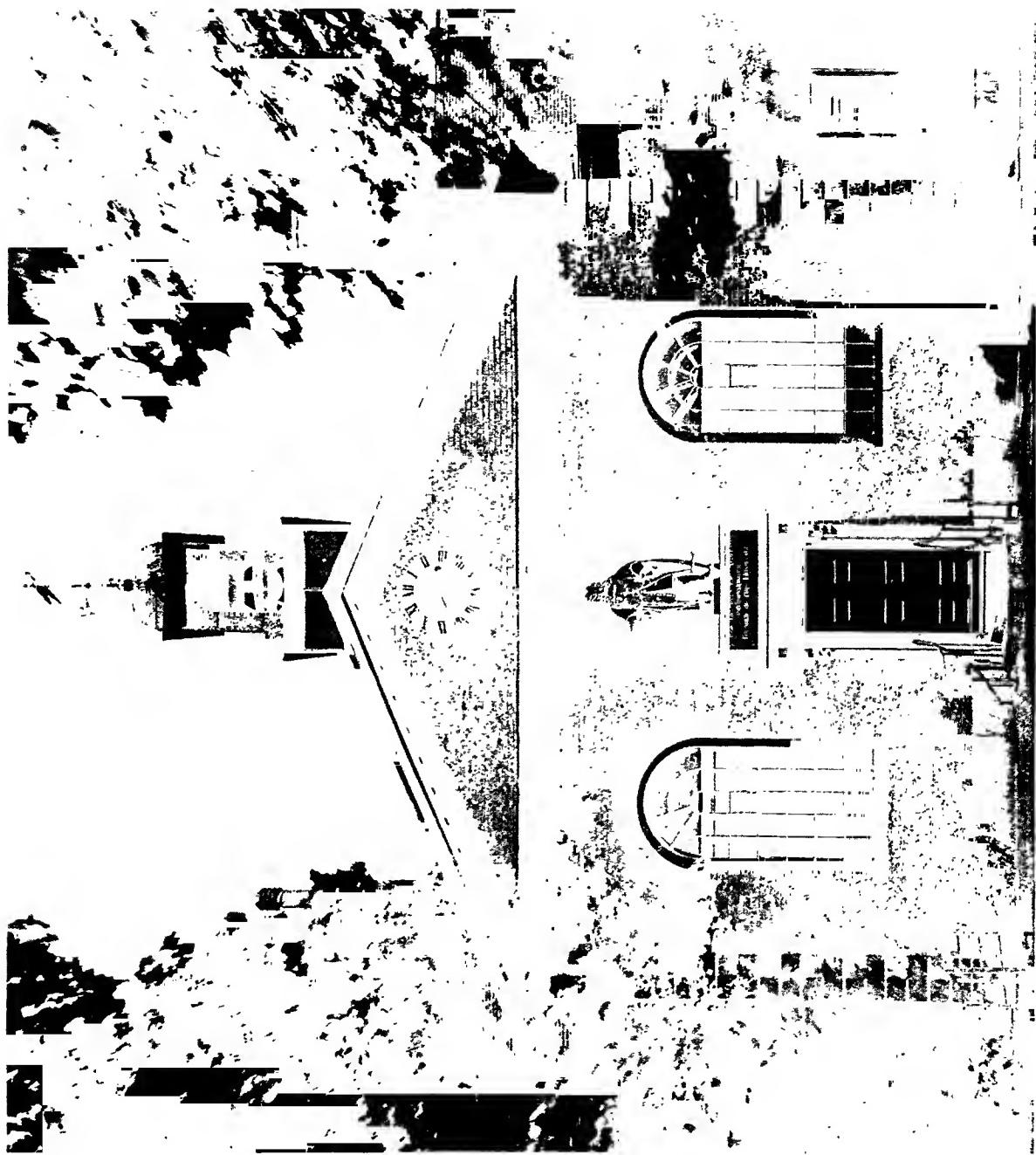
THE PARISH OF ST. LEONARD, SHOREDITCH.

BY PROFESSOR A. E. RICHARDSON [F.]

There are few studies more pleasant than the history of cities. This is especially true of London, which has developed through the centuries from a place of measurable limits to include hamlets and villages that formerly stood beyond the walls. Thus from the viewpoint of to-day we are faced with a variety of small Londons, all closely related and outwardly bearing the antecedents of family, much as individual bricks ensure the character of a complete building. The development of London has very largely determined its homogeneity ; it is a record of progress in itself, not in the way of grand streets and boulevards, not showing the ambitions of kings, or envisioning the future in concrete form, but rather on lines resulting from individualistic and uncoordinated endeavours. For this reason it is to be regarded as the most literal document extant, showing highways unaltered from the earliest times, old boundaries preserved in names and terminals, and buildings which are pages of history in themselves. A comprehension of historical London is beyond the ability of a single mind or the scratchings of a single pen, however

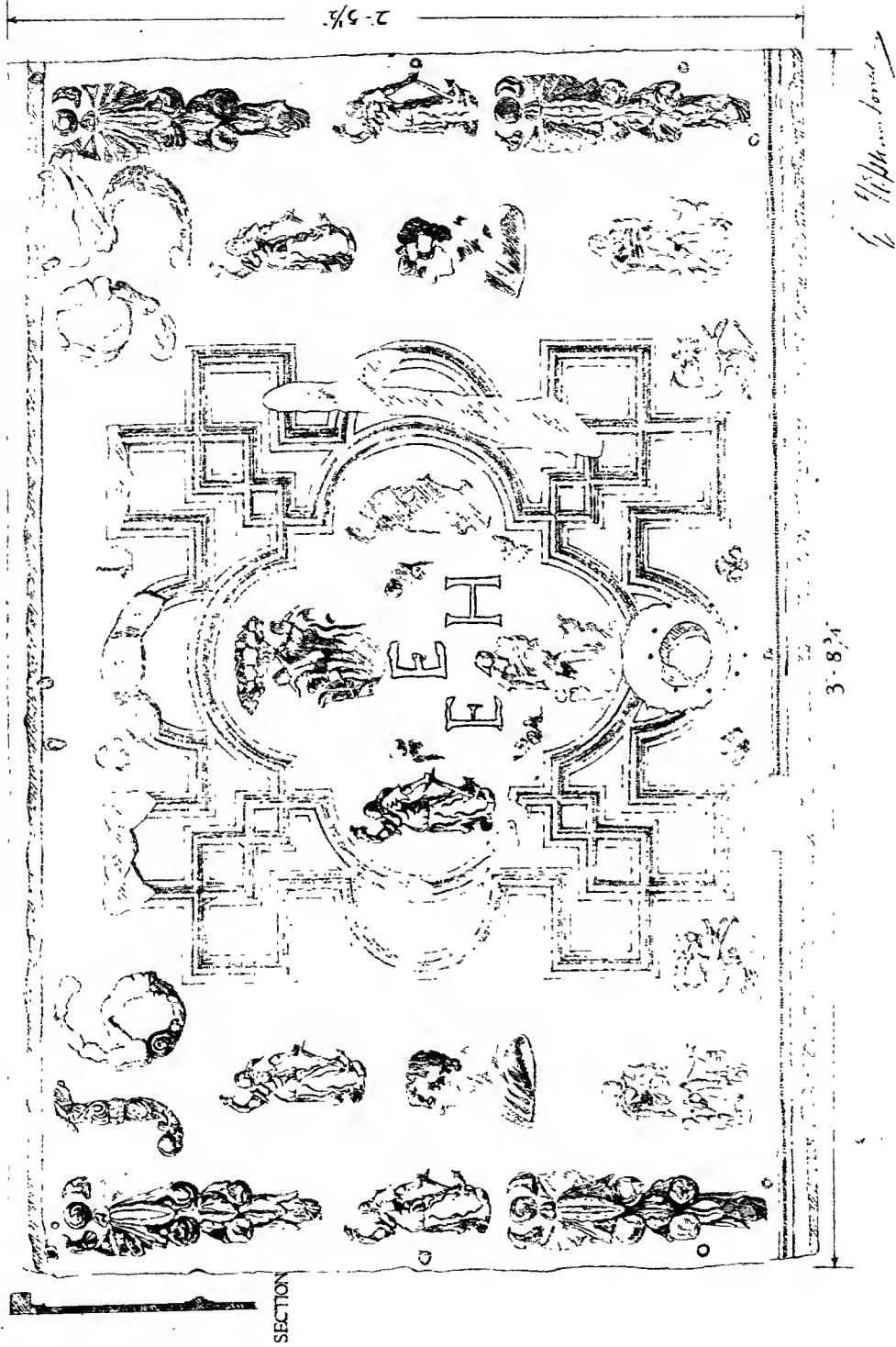
brilliantly the latter may be used. It is only possible to summarise general characteristics, for no modern Stow would have the physical and mental strength to undertake the task alone. By the time the voluminous material had been formed into manuscript a yet newer flush would have been added to the city's countenance. On this account, the *Survey of London* under the joint editorship of the London County Council and the Survey Committee has the unusual advantage of taking time by the forelock, for the nature of the task demands immediate action, as well as authentic deliberation. It is a sign of advancement to find that while research work in the fields of archaeology in other lands is proceeding unabated, even closer attention is being given to the minute history of London. The purpose is fourfold. First, the story of the town is recorded ; secondly, the architectural merits of the buildings is shown ; thirdly, civic pride is encouraged, and, what is by far the most important, works of unquestioned excellence are made prominent, and in many cases preserved for future enjoyment. We have become so accustomed to descriptions of architecture, and the auxiliary arts, outside the metropolis, that the fact of having works of unusual interest within the gates is often neglected. The mass of material defies analysis ; the exigencies of everyday affairs prohibit first-hand study. Architects and the public are not in reality apathetic or devoid of sympathy ; it is the vastness of London that confuses and

Survey of London. Vol VIII. The Parish of St. Leonard, Shoreditch. Issued by the Joint Publishing Committee representing the London County Council and the London Survey Committee, under the General Editorship of Sir James Bird (for the Council) and Philip Norman (for the Survey Committee). Published for the London County Council by B. T. Batsford, Ltd., 94, High Holborn, W.C. £2 2s. 1922.



THE GEFFRYE ALMSHOUSES. EXTERIOR OF CHAPEL

LEAD CISTERNS FRONT FROM THE WHITE SWAN P.H. 196 HIGH STREET SHOREDITCH.



JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

appals. It is necessary to live in a city to appreciate its moods, but it is more essential to lay siege to its buildings if we would probe the inner mysteries. Such a volume as the one under review does this, and our thanks are due to those whose labours have contributed so much to its realisation.

The earliest mention of "Soreditch" occurs in the twelfth century. It was a small hamlet at the junction of the Roman roads, Old Street and Kingsland Road, the Ermine Street of antiquity. All traffic to the north passed from London this way, by the valley of the Lea, in avoidance of the northern heights. Thus the measurement of the road northerly came to be taken from the old church which the Agas view of 1570 shows, heading an assembly of lesser buildings. In 1642, when the fortifications of London stood beyond the church athwart the highway, as Eyre's view shows, it had become a considerable suburb, the dormitory of many good citizens. Just over a century later, when Peter Chassereau made his survey, the main bulk of the place occupied the same position, but tentacles had been extended towards the meadows of Kingsland, and Manor houses and barns dotted the country towards Hackney. Here was a place of rural delight within daily access of Cheapside, to attract the more prosperous citizens and to encourage the building of almshouses by the City and other companies for the benefit of those no longer fit for work. So far the development had been determined by the main highways, but the impress of inner London was making itself apparent in Hoxton Square and other incipient streets. Little did Chassereau think when he defined the boundaries of arable land that his rendering of the latter portended the brick formations which followed half a century later.

By this time Dance the elder had completed the new Church of St. Leonard, and in all probability the Clerk's House adjoining. The Geffrye Almshouses, built in 1715, had become a familiar landmark on the Cambridge Road, while Aske's Almshouses, built by Sir Robert Aske in 1692, still faced open country between their western enclosure and the heights of Islington. By the year 1827 the scene had entirely changed; Shoreditch had become part of London, which now advanced beyond Kingsland, the Regent's Canal was in full operation, Hackney no longer rural, and Stamford Hill and Clapton frequented night and morning by those men of the city who could afford the tiresome journey by stage from the Flower Pot. Along this road from Shoreditch Church to Cambridge the influence of eighteenth century London can be traced. There are the brick mansions of London tradesmen at Tot-

tenham, Enfield, Hoddesdon and Ware, even at Buntingford and Royston. Tablets to their memory can be seen not only on the walls of Shoreditch Church, but in the aisles of a score of churches along this road. Such facts as the above have the interest of throwing into stronger relief the importance of Shoreditch as a link in the growth of London.

How many Londoners have heard of the Augustinian Priory of St. John the Baptist, Holy Well, which was founded early in the 12th century? The very site is obliterated by the North London Railway. Or who is there to suspect the existence of a sixteenth century theatre associated with the mediæval site? Yet the fact is recorded by the *Survey* that "James Burbage received from Giles Allen a 21 years' lease of the premises for the purpose of erecting a building to be devoted to plays." It was the first public theatre in London and had the distinction of being named "The Theatre." Burbage passed through many financial and other worries, for, in 1598, when the lease expired, its renewal was not granted, with the result that his followers tore down the materials which they carried across the water to build the "Globe."

There are the seventeenth and eighteenth century houses of Hoxton Square, which was building from 1684 onwards; there are the brick fronts of Charles' Square, which the bricklayers took a pride in, while Walpole ruled and Gay wrote. And so one could go on describing the context of this delectable volume and never tire. The extent of the architectural interest can best be judged from the admirable series of photographs and exceptionally interesting measured drawings presented by Mr. Topham Forrest, F.R.I.B.A., superintending architect to the Council. In the drawings selected the greatest care has been taken, not only to reveal existing work but to provide accurate information for the use of modern architects. In addition to a complete set of drawings of Shoreditch Church there are others setting forth the beauty of the "Peal Boards" of 1777 and 1784, the design of Huniades' Tomb, as well as the chief memorial tablets within the church. The volume is complete and fascinating; there is introductory matter prepared by Mr. W. W. Braines, B.A. (Lond.), principal assistant in Sir James Bird's Department, as well as 88 plates of topographical and architectural interest contributed by Mr. Topham Forrest. With such material and authentic historical descriptions the history of Shoreditch is brought to hand. It is a volume as much for the architect as for the lover of London, as entertaining as a historical novel and as useful to the practitioner as a dictionary of building.

CORRESPONDENCE

Correspondence

THE PRESIDENT AND THE ALLIED SOCIETIES.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I have had it in mind for some time past to call attention to a branch of Mr. Waterhouse's activities as President that is probably not fully recognised by any of us, but may be of even greater value than other things that he has done. I mean visiting our Allied Societies, delivering addresses at their meetings and fostering relations that have become far more intimate as the result of his visits. Mr. MacAlister has been kind enough to furnish me with a list of these visits, and I give it below *in extenso*, because I think it is a very remarkable testimony to the completeness with which he has realised a great opportunity :

20 September 1921	Winchester (The Hampshire and Isle of Wight Association of Architects)
12 December 1921	Bristol (The Bristol Society of Architects)
13 December 1921	Manchester (The Manchester Society of Architects)
13 January 1922	Birmingham (The Birmingham Architectural Association)
2 February 1922	York (The York and East Yorkshire Architectural Society)
22 February 1922	Newcastle (The Northern Architectural Association)
9 March 1922	Cardiff (The South Wales Institute of Architects)
9 June 1922	Cardiff (The Annual Conference)
14 December 1922	Manchester (The Manchester Society of Architects)
17 January 1923	Leicester (The Leicester and Leicestershire Society of Architects)
24 January 1923	Leeds (The Leeds and West Yorkshire Architectural Society).
1 February 1923	Sheffield (The Sheffield, South Yorkshire and District Society of Architects).
2 February 1923	Birmingham (The Birmingham Architectural Association)
7 February 1923	Newcastle (The Northern Architectural Association)
28 February 1923	Manchester (The Manchester Society of Architects)
5 March 1923	Liverpool (The Liverpool Architectural Society)
7 March 1923	Cardiff (The South Wales Institute of Architects)

and I may add Edinburgh, 15 June 1923, when he is to be present at the Annual Conference.

In each of these centres he has made speeches that have been inestimably valuable in developing a good understanding between London and the provinces and between the Institute and its Allies. The conditions affecting our alliances have changed materially with the

course of time and greatly increased the possible worth of them to us : towns have become cities, societies have increased in number and size, important Schools of Architecture have been set up under the ægis of the Institute, and provincial architecture has become an important element in the current art of the nation. I am fully convinced that as time goes on the stability of the Institute will rest more and more on the support of the provincial societies and of our members in the provinces, and that our President, by his visits, the addresses he has delivered and the friendships he has formed, has done very much to promote the well-being of the profession. The personal factor counts for much, and we can scarcely make enough of it.—Yours faithfully,

ARTHUR KEEN [F.
Hon. Secretary.

PATRIOTISM AND PRICES.

To the Editor, JOURNAL R.I.B.A.—

SIR,—In the course of my work to-day I had to buy a bedroom grate, the price of which in Thames Street, without any tile surrounds or mantel, was 62 shillings. In design and construction it was of the simplest, and if a man like Henry Ford had produced it, by modern methods, the price would probably have been round about 62 pence, yet I was advised that prices are to be advanced. The question I should like to ask in your columns is whether any advances on present prices are justified by existing conditions. Wages have gone down, production has gone up. From the national point of view it is of the utmost importance that, if prices take to themselves any movement, the direction should be downward. The Government are again making a forlorn attempt on "Housing," and an increase in prices will bring this second campaign to as untimely an end as the first, with results which may easily be disastrous, and we may be confronted with the problems of 1923 in 1928.

Speaking from my own experience, a house in Berkshire, built from my designs, is now being finished at a cost of 1s. 2d. a cubic foot. A year or so ago the price would have been 1s. 9d., compared with a pre-war price of 8d. If we could only get middle-class houses built to-day at, say, 10d. to 1s., the volume of work resulting would be surprising, and the short-sighted manufacturer would reap a greater reward from a policy of small profits and quick returns than his present extortionate methods. He might also bear in mind that the results would be far-reaching and tend to reduce unemployment in other trades. It would indirectly help to solve the Housing of the Working Classes, as many middle-class families are to-day living in cottages which are more suitable for working men.

If only we could have a general recognition of the fact that the profiteer as a customer, with money to spend, is dead, buried, and, one hopes, in some cheerless limbo, we might make progress.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The average decent middle-class man who does the work of the world and pays the piper is poor, very poor indeed, yet he still supplies the main volume of business. If the market of his trade is to be captured, all over the world, it is not good business to try and charge him as much as possible. The clever and the patriotic thing is to try and give extremely good value for as small a profit as is possible, and depend on the turnover.

The Government themselves are not free from blame, because their revaluation proposals appear to be based on greed and will not help matters.

I, therefore, appeal to all architects, builders, and building owners to give this question of any advance of prices their very careful attention and to watch the manufacturers' trusts. These people have not any souls to save, but by combination we may be able to kick their bodies into the paths of rectitude.

C. H. B. QUENNELL [F.]

The Library

An interesting volume has recently been presented to the library by Mr. E. Alexander Young [A.], entitled *The Surveyor in Foure Books*, by Aaron Rathborne.

The book was published in 1616, and is the earliest work of its kind in the library. Previous to this, pride of place was taken by the first edition of William Leybourne's *The Compleat Surveyor*, published in 1653. The volume has an engraved title page showing the surveyor using a theodelite and a plaine table, and it is dedicated to King Charles I when Prince of Wales, with a portrait of the Prince by Francis Delaram.

On the back of the title page is a receipt for hearth money dated 5 November, 1662.

The first two books describe the geometrie of Surveying, the third book the several instruments in use with the methods of using them, including the Peractor and Decimall chayne, inventions of the author. The fourth book treats of the legall part of the Survey, and is full of information but distantly related to surveying.

The volume closes with an apology for the errors in the book expressed in the couplet—

"Men's workes have faults, since Adam first offended,
And those in these are thus to be amended."

WILLIAM P. STEEL.

* * * Mr. E. Alexander Young [A.] noticed an old book on surveying when staying in the Isle of Wight ; he telephoned to the Institute to know if the library had the volume. Finding that it had not, he bought it and has presented it.

THE FUTURE OF CROSBY HALL.

It will be within the memory of most people that in 1909 a great effort was made to prevent the demolition of Crosby Hall in Bishopsgate, on account of its signal architectural beauty and also because it was the last considerable relic of a City merchant's mansion of the Middle Ages.

The effort to save the building was unsuccessful, but so much interest had been aroused that funds were forthcoming for the re-erection of the Hall, with its fine oak roof and oriel window, on a site on the Thames-side at Chelsea, and a scheme was started for a residential college of the

University of London for which it would form the dining-hall. For various reasons—among them the projected removal of the University to Bloomsbury—this proposal did not mature, and now, after fourteen years' uncertainty, the Hall has been offered to the British Federation of University Women, who desire headquarters in London, where they can provide accommodation for graduates from home and abroad who visit London.

An appeal is now being made for funds to complete the purchase, and to erect the necessary residential buildings, which will form an open quadrangle with the Hall in the centre.

That the custodianship of so beautiful and ancient a building should fall to this new and vigorous community of women is a happy chance which may do much to enlist their practical interest in the merits of fine architecture and in the preservation of the memorials of the past.

ST. PAUL'S CATHEDRAL PRESERVATION FUND.

The Council of the Royal Institute announce that the St. Paul's Cathedral Preservation Fund is now closed, and that the sum of £300 has been handed to Canon S. A. Alexander, Hon. Treasurer of the Fund. The Council desire cordially to thank all Members and Licentiates who have subscribed towards the preservation of St. Paul's, and the Allied Societies who have collected subscriptions locally. The list of the latter is as follows :—

The Berks, Bucks and Oxon Architectural Association.
The Birmingham Architectural Association.
The Incorporation of Architects in Scotland.
The Manchester Society of Architects.
The Northamptonshire Architectural Association.
The Northern Architectural Association.
The Nottingham and Derby Architectural Society.
The Sheffield Society of Architects.
The South Wales Institute of Architects.

THE R.I.B.A. AND THE HOUSING BILL.

On the recommendation of the Housing Committee, the Council of the R.I.B.A. endeavoured to obtain the following amendments to the Housing Bill during the Committee stage. The amendments were put forward by the member for West Newcastle-on-Tyne (Mr. Adams) and the member for West Walthamstow (Mr. McEntee) respectively. The Minister of Health was unable to accept either amendment :—

1. To be inserted at the end of Sub-Section (2), Section 1 :—

And provided that in the design of the houses regard shall be had to the amenities of the neighbourhood, to convenience of planning, to suitability of aspect, to architectural appearance, and to the provision of adequate space between and about the buildings.

2. The following new Sub-Section to be inserted after Sub-Section (2), Section 1 :—

Before being approved by the Council of a Local Authority the designs for the houses shall be publicly exhibited for a period of not less than seven days, and if within a further period of seven days following such public exhibition written objection is made to the Council by not less than ten ratepayers in the area of

WATER BOARD'S REGULATIONS

the Local Authority the Council shall take into consideration such objections, and if they think fit shall invite the Royal Institute of British Architects to nominate one or more architects to advise them on the designs.

WATER BOARD'S REGULATIONS.

In consequence of inquiries by Members and references from the Council, the Practice Standing Committee appointed a Sub-Committee to consider and report upon the Water Board's Regulations relating to the approval and stamping of fittings, weights of pipes, and other matters. The following is a *résumé* of their report which was submitted to the Council, and would have been included in the annual report had the Committee concluded its labours in time, but it is believed to be of sufficient interest to Members to warrant its publication now. The Sub-Committee are further considering the Model Code of By-laws and Regulations prepared by the British Waterworks Association :—

Under the Metropolis Water Act, 1871, powers were granted to the London water companies to make Regulations governing the supply of water, and accordingly Regulations were drawn up, Government sanction thereto obtained, and published in August, 1872. New Regulations, extending the powers of the water companies, were proposed in 1901, but owing to the strenuous opposition during the Local Government Board inquiry these were withdrawn, and those of 1872 remain in force.

The Metropolitan Water Board was established under the Metropolis Water Act, 1902, to take over the undertakings of eight metropolitan water companies and those of the Tottenham and Enfield U.D.C.'s, which were taken over and transferred to the Water Board in June and July, 1904.

The Board have since published amended and more rigorous Regulations, the most recent being a pamphlet published in 1921 entitled "Specification for the Manufacture of Water Board Fittings." This specification, according to considered legal opinion, has no force whatever in law, and the same applies to a pamphlet issued by the New River Company, and adopted by the Board, entitled "Instructions to Plumbers."

The continuous attempts of the Water Board, by pamphlets and circular letters to their consumers, to enforce requirements which are unauthorised by statute, and their endeavour to make the testing, approval and stamping of water fittings a condition of supply, are illegal.

With regard to the weight of lead pipes, the Committee came to the conclusion that there is not a sufficient case for the reduction of the weights laid down by the 1872 Regulations, and point out that except where pipes are in contact with the ground they may be of lead, copper or wrought iron at the option of the consumer. The Metropolis Water Act, 1871, contains no Regulations covering pipes other than lead pipes.

J. DOUGLAS SCOTT [A].
H. V. MILNES EMERSON [A].
Hon. Secs. Practice
Standing Committee.

Review

SPECIFICATION, No. 25, 1923. Edited by Frederick Chatterton [F.]. Technical Journals, Ltd.

That invaluable consultant to the practising architect, *Specification*, has reached its 25th annual edition. To those of us who fancy ourselves still young, but yet recall the first issue, this comes as something of a shock. Mr. Waterhouse graces the volume with a charming introductory letter of greeting to the profession, in the course of which he makes our flesh creep by picturing a client who has got hold of this compendious publication, and claims omniscience. One hopes that the danger is remote, the very solidity of the book placing it in a different category to the many less weighty others about building with which the layman in these difficult days is only too apt to confound us.

It is hard to pitch on any subject even remotely connected with building upon which some useful information cannot be found in these pages, whose frequent revision makes the matter well up to date. Not the least valuable are the special chapters on Proprietary Materials and Miscellanea, in which appear concise descriptions of articles and processes which do not readily fall within the ordinary trades.

In the trades or sections it would be too much to expect that all the vast mass of detail should be of equal merit or soundness—it is obviously the "safe" or normal method which must be described, and one can find many descriptions both in the notes and the specification clauses giving a different (and, of course, inferior!) way to one's own habitual practice in doing similar things. Bricks, for instance, appear as "to be selected for even colour," pointing is struck joint in cement (with a hint of blue mortar), masonry "finished with a neat flat surface," and plastering in trowelled stucco. Curiously, no specification clauses are given for the tiler's trade. There is an admirable contribution on thatching. An excellent collection of architect's working drawings—to which one can be reasonably sure that the above-quoted clauses are not applied by their authors—is an interesting feature of the issue, and the special articles deal with the Conversion of Existing Houses into Flats, the Problem of Higher Buildings, the Immediate Prospects of the Building Industry, the Law of Property Act, 1922, in its Relation to Building, and our own Scale of Professional Charges. From time to time much useful matter has appeared in these special articles, and the publishers might with advantage add a back reference to preceding issues, since few of us have available the whole 25 editions, and it would be valuable to have a handy means of discovering what has gone before. Mr. F. Chatterton [F.] may be congratulated on his work as editor of the present issue.

EDWIN GUNN [A].

Obituary

FRANK DARLING.
ROYAL GOLD MEDALLIST.

At the General Meeting of the Institute on Monday Mr. Arthur Keen, Hon. Secretary, announced the death of Mr. Frank Darling, of Toronto, on 19 May, at the age of 73. Mr. Darling, who was the most distinguished Canadian architect of his time, was a member of the well-known firm of Messrs. Darling and Pearson. In 1915 he received from the Institute the Royal Gold Medal for the promotion of architecture and was the only Dominion architect who has received this honour.

In the JOURNAL of 26 June of that year many of his most important buildings were illustrated, including the Canadian Bank of Commerce, Montreal, the Convocation Hall, University of Toronto, Bank of Montreal, Toronto, and the Mutual Life Assurance of Canada. Among his other principal works were in Toronto the General Hospital, the Canadian Pacific Railway Building, the Royal Ontario Museum, Bank of Nova Scotia Office, the Dominion Bank Office, and various other banks; in Winnipeg he built the General Post Office and the Grain Exchange, and in Montreal the Sun Life Office.

In a Paper read before the Institute by Mr. F. S. Baker [F.] in January 1913, on "Canadian Architecture," there are illustrations of the work of Messrs. Darling and Pearson. R.I.B.A. JOURNAL, Vol. XX., pp. 165-181.

* Further reference will be made to Mr. Darling's career in a later issue of the JOURNAL.

SIR AMBROSE POYNTER [F.]

We regret to announce the death of Sir Ambrose Poynter, Bart., at a nursing home, aged 55. 01. 31 M. y.

The elder son of Sir Edward Poynter, first baronet, and President of the Royal Academy, Ambrose Macdonald Poynter was born on 26 September 1867. His mother was Agnes, daughter of the Rev. G. B. Macdonald, Wesleyan minister; her three sisters married respectively Mr. Alfred Baldwin, Mr. Lockwood Kipling, and Sir E. Burne-Jones. Sir Ambrose was, therefore, first cousin of the Prime Minister and of Mr. Rudyard Kipling. Mr. C. F. Bell, of the Ashmolean at Oxford, was also a first cousin, his mother having been a sister of Sir Edward Poynter.

Sir Ambrose inherited from his grandfather both his name and his profession. The elder Ambrose is chiefly remembered as the designer of St. Katherine's Hospital, Regent's Park. From Eton he went on to South Kensington and the Royal Academy Schools, and was articled to Professor Aitchison, R.A. (President R.I.B.A. 1896-99). He began practice as an architect in 1893.

Early in his career his design in a great international competition for a Clock Tower at Buenos Aires was placed first.

Among the other work carried out by him before his entrance into partnership with Mr. Wenyon in 1913 are Vernon House, now the premises of the Overseas Club, which he remodelled for the late Lord Hillingdon; Polldden Lacey, where the Duke and Duchess of York spent their honeymoon; and the balustrade outside the Atheneum, executed in white and green marbles which he designed in collaboration with Sir Launce Alma-

Tadema. He erected a mausoleum for Sir Charles Walston in the latter's grounds in Cambridgeshire; and for Messrs. Jardine, Matheson and Co. he designed a war memorial, with Mr. F. W. Pomeroy, A.R.A., as sculptor. The war memorial of the Society of Architects is also his work.

At the time of his death Sir Ambrose was engaged on a large work dealing with the Italian Renaissance. During the war, in which he did good service as a lieutenant in the R.N.V.R., he published *The Coming War*, in which he described the larger conflicts that would, he predicted, succeed the upheaval which was then convulsing Europe. He was a frequent contributor to architectural periodicals, probably his latest work being an essay on the Adam Brothers, published in *Architecture*. He succeeded to the baronetcy in 1919. The title now passes to his brother, Hugh Edward, late of the Ottoman Public Debt Administration.

"It is to be regretted," says *The Times*, "that during an unusually busy career it was never Sir Ambrose Poynter's good fortune to leave a single work on such a scale as to leave permanent proof of his undoubted genius. More than once did he come within tantalising distance of signal achievement, as when he was awarded the second premium of the Stepney Town Hall Competition. To those who have seen his designs for a distinguished American diplomat's residence on Long Island, it must be a matter of sincere regret that more of his work was not translated into bricks and stone."

GEORGE H. M. TREW [A.]

Mr. Trew died at St. Michael's Nursing Home, Seaford, Sussex, recently at the age of 55.

Mr. Trew received a portion of his education at Queen's College, Taunton, and his first appointment was in the Borough Engineer's Office at Swansea. From there he became articled to Mr. C. E. Sayer [A.], at Soho Square, London; and he was elected an Associate of the Institute in 1894. Subsequently he entered the office of the County Surveyor, Wakefield, Yorkshire, and whilst there he became a Member of the Institute of Municipal and County Engineers.

Some three years later he received an important appointment on the temporary staff of the Royal Engineers at Woking, transferring later to the temporary staff of the Admiralty Works Loan Board, from which, after a very short time, he was successful in passing his examination and became a member of the permanent staff of the then Admiralty Works Department (now Civil Engineer-in-Chief's Department). He served with this department at Devonport, Wei-hai-Wei, Whitehall, Sheerness, and Malta, and, just prior to the outbreak of war, at Invergordon. Shortly after the outbreak of war he was appointed Civil Engineer for the North of Scotland, and later was promoted to Assistant Civil Engineer-in-Chief, shortly after rising to Deputy Civil Engineer-in-Chief, which position he held up to the time of his death.

Mr. John Keppie [F.], of Glasgow, Past-President of the Glasgow Institute of Architects, and formerly a member of the Council of the R.I.B.A., has made a gift of £3,000 to provide a scholarship to be held in alternate years by the most distinguished student of the Glasgow School of Art and the Glasgow School of Architecture.

THE ANNUAL ELECTIONS

The Annual Elections

SCRUTINEERS' REPORTS.

The results of the Annual Elections are recorded in the subjoined Reports of the Scrutineers, which were read at the General Meeting on Monday, 11 June.

The Scrutineers appointed to count the votes for the election of the Council and Standing Committees for the Session 1923-24 beg to report as follows:—1,768 envelopes were received—602 from Fellows, and 1,166 from Associates. The result of the election is as follows:—

COUNCIL, 1923-1924.

PRESIDENT.—*Elected*: John Alfred Gotch, 1,061 votes.—*Not Elected*, Alfred William Stephens Cross, 641. 1,765 voting papers were received, of which 62 were invalid.

PAST PRESIDENTS.—John William Simpson (unopposed); Paul Waterhouse (unopposed).

VICE-PRESIDENTS.—*Elected*: Edward Guy Dawber, 1,143 votes; William Curtis Green, 1,141; Major Harry Barnes, 1,066; Herbert Tudor Buckland, 1,057.—*Not Elected*: Herbert Duncan Searles-Wood, 635; Sydney Perks, 626; William Edward Riley, 594; Charles Henry Heathcote, 586. 1,765 voting papers were received, of which 23 were invalid.

HON. SECRETARY.—Arthur Keen (unopposed).

MEMBERS OF COUNCIL: FELLOWS.—*Elected*: Sir John James Burnett, 1,173 votes; Robert Atkinson, 1,157; Sir Thomas Edwin Cooper, 1,151; Sir Edwin Landseer Lutyens, 1,137; Giles Gilbert Scott, 1,116; Walter Cave, 1,109; Henry Victor Ashley, 1,073; Major Hubert Christian Corlette, 1,069; Walter Tapper, 1,064; Sir Banister Flight Fletcher, 1,057; Maurice Everett Webb, 1,048; Thomas Ridley Milburn, 1,043; Edward Prioleau Warren, 1,041; Sir Alfred Brumwell Thomas, 1,028; Gilbert Fraser, 1,009; Percy Edward Thomas, 1,002; John Keppie, 1,000; Henry Martineau Fletcher, 983.—*Not Elected*: George Hubbard, 643; Charles Lovett Gill, 633; Charles Burrows Flockton, 599; George Topham Forrest, 597; William Gillbee Scott, 596; William Walter Scott-Moncrieff, 591; James Alfred Swan, 589; Max Clarke, 586; William George Hunt, 552; Frederick Robert Hiorns, 540; Allan Ovenden Collard, 536; Delissa Joseph, 534; Herbert Shepherd, 532; Herbert Winkler Wills, 531; Percival Maurice Fraser, 529; Heaton Comyn, 528; Digby Lewis Solomon, 528; Henry John Chetwood, 463; Albert Walter Moore, 181; Charles Nicholas, 176. 1,765 voting papers were received, of which 64 were invalid.

ASSOCIATE MEMBERS OF COUNCIL.—*Elected*: William Godfrey Newton, 1,104 votes; John Hubert Worthington, 1,100; Michael Theodore Waterhouse, 1,093; Herbert Arthur Welch, 1,059; George Churchus Lawrence, 1,012; Harold Chalton Bradshaw, 1,009.—*Not Elected*: William Henry Ashford, 599; John Douglas Scott, 575; Frank Woodward, 574; Joseph Seddon, 547; Arthur Welford, 535; Leonard Arthur Culliford, 473; Harry Valentine Milnes Emerson, 179; Ernest Bates, 168. 1,765 voting papers were received, of which 37 were invalid.

REPRESENTATIVES OF ALLIED SOCIETIES.—Sidney Frank Harris, Northampton (unopposed); Francis Jones, Manchester (unopposed); William Thorpe Jones, Newcastle (unopposed); James Lochhead, Glasgow (unopposed); Eric Morley, Leeds (unopposed); Willie Swinton Skinner, Bristol (unopposed); Charles Geddes Soutar, Dundee (unopposed); Stephen Wilkinson, York (unopposed); Robert Gordon Wilson, Aberdeen (unopposed).

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION.—Edwin Stanley Hall (unopposed).

HONORARY AUDITORS.—Robert Stephen Ayling (unopposed); Charles Edward Hutchinson (unopposed).

ART STANDING COMMITTEE: FELLOWS.—*Elected*: Henry Vaughan Lanchester, 1,130 votes; Halsey Ralph Ricardo, 1,109; Professor Stanley Davenport Adshead, 1,104; Professor Frederick Moore Simpson, 1,066; Walter Cave, 996; Francis Winton Newman, 909; Henry Philip Burke Downing, 879; Maurice Everett Webb, 824; Emanuel Vincent Harris, 737; William Robert Davidge, 623.—*Not Elected*: Frederick Robert Hiorns, 615; Arnold Dunbar Smith, 608; William Walter Scott-Moncrieff, 597; Heaton Comyn, 539; Frederick Charles Eden, 533; James Alfred Swan, 441; Thomas Francis Wiltshire Grant, 360. 1,454 voting papers were received, of which 15 were invalid.

ART STANDING COMMITTEE: ASSOCIATES.—*Elected*: Cyril Arthur Farey, 1,069 votes; Michael Theodore Waterhouse, 985; Leonard Holcombe Bucknell, 914; Philip Dalton Hepworth, 869; Percy Wells Lovell, 785; Thomas Smith Tait, 704.—*Not Elected*: Joseph Seddon, 620; Arthur Welford, 561; William Edward Brooks, 500; Albert Reginald Powys, 491; Thomas Retford Somerford, 329. 1,454 voting papers were received, of which 16 were invalid.

LITERATURE STANDING COMMITTEE: FELLOWS.—*Elected*: John Alfred Gotch, 1,140 votes; Walter Tapper, 1,027; Edwin Stanley Hall, 1,024; Major Hubert Christian Corlette, 945; Arthur Stratton, 941; Martin Shaw Briggs, 892; Charles Harrison Townsend, 884; Harry Bulkeley Creswell, 809; Charles Sydney Spooner, 803; David Theodore Fyfe, 799.—*Not Elected*: William Henry Ward, 772; Stanley Churchill Ramsey, 747; Basil Oliver, 616; William Henry Ansell, 596; Matthew James Dawson, 585; Arthur Hamilton Moberly, 492. 1,454 voting papers were received, of which 44 were invalid.

LITERATURE STANDING COMMITTEE: ASSOCIATES.—*Elected*: John Alan Slater, 1,100 votes; John Hubert Worthington, 1,091; George Drysdale, 1,044; Harold Chalton Bradshaw, 1,035; Charles Cowles-Voysey, 998; Arthur Trystan Edwards, 959.—*Not Elected*: Charles Edward Sayer, 791; Leonard Arthur Culliford, 634. 1,454 voting papers were received, of which 26 were invalid.

PRACTICE STANDING COMMITTEE: FELLOWS.—*Elected*: Arthur Keen, 1,064 votes; Henry Victor Ashley, 883; Thomas Ridley Milburn, 765; Max Clarke, 731; Sydney Perks, 706; George Hastwell Grayson, 688; William Gillbee Scott, 681; Francis Jones, 666; George Topham Forrest, 644; William George Hunt, 611.—*Not Elected*: William Henry White, 604; Percival Maurice Fraser, 547; Digby Lewis Solomon, 545; Allan Ovenden Collard, 539; Delissa Joseph, 534; William Henry Atkin-Berry, 510; Herbert Shepherd, 489; Harry Teather, 457; James Ernest Franck, 347; Charles Nicholas, 345; Henry Albert Saul, 335; Charles Johns Mole, 210. 1,454 voting papers were received, of which 67 were invalid.

PRACTICE STANDING COMMITTEE: ASSOCIATES.—*Elected*: Horace William Cubitt, 1,130 votes; Gilbert Scott Cockrill, 1,050; Herbert Arthur Welch, 969; John Douglas Scott, 967; George Leonard Elkington, 960; Charles Woodward, 910.—*Not Elected*: Percival William Hawkins, 767; Charles Benjamin Smith, 736. 1,454 voting papers were received, of which 29 were invalid.

SCIENCE STANDING COMMITTEE: FELLOWS.—*Elected*: William Alfred Pite, 1,299 votes; Professor Ravenscroft Elsey Smith, 1,296; Alan Edward Munby, 1,255; William Edward Vernon Crompton, 1,240; Francis George Fielder Hooper, 1,239; John Edward Dixon-Spain, 1,230; George Reginald Farrow, 1,204; Raymond Unwin, 1,116; Walter Robert Jaggard, 1,109; Thomas Penberthy Bennett, 1,039.—*Not Elected*: Algernon Sydney Richard Ley, 864. 1,454 voting papers were received, of which 24 were invalid.

SCIENCE STANDING COMMITTEE: ASSOCIATES.—Robert John Angel (unopposed); Hope Bagena (unopposed); Henry William Burrows (unopposed); Harry Valentine Milnes Emerson (unopposed); John Hatton Markham (unopposed); Harvey Robert Sayer (unopposed).

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Scrutineers.—Henry Lovegrove (Chairman), Robert Lowry, F. T. W. Goldsmith, Lionel U. Grace, T. Frank Green, Ernest G. Allen, Sydney Tatchell.

ELECTION OF OFFICERS 1923-4.

Notes by the Scrutineers.

1,768 papers were received for the Council ; 1,450 for the Standing Committees.

It is suggested that in future years the instructions for voting be printed on a separate sheet and not on the backs of the several papers.

That the lists of the nominations for the Standing Committees be printed on two sheets, with perforation in the middle, so that they can be torn into four half-sheets, thus expediting the counting and preventing some votings being invalid.

Large number of votes lost by more than the permissible number being voted for, apparently due to crossing out the opposing block without realising that an "independent" is also included in nominations.

The unusual condition of a contest for the Presidency has resulted in many not voting at all or leaving one name crossed in pencil only and not inked over, a change in the position of the line dividing title or heading of paper from nomination lists is suggested to obviate this in future.

Any writing on the paper invalidates the whole paper ; there were an unusual number which were rejected on this account.

One cancelled for having identification number inserted.

All the Enumerators but one attended the whole time, the Scrutineers were able to relieve each other, and the Chairman was able to arrange to be present for the whole of both days except for an hour on the afternoon of the first day.

The whole body gave careful attention to the work.

11 June 1923. HENRY LOVEGROVE,
To the Secretary of the Chairman.
Royal Institute of British Architects.

Competitions

It has been decided that Members and Licentiates of the Royal Institute must not take part in the following competitions :—

Fauldhouse Infant School Competition.

Yeovil Burial Ground Lay-out Competition.

Largs Pavilion Competition.

PROPOSED SUNDAY SCHOOL COMPETITION, TWICKENHAM.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above Competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

CITY OF HULL.

The Lord Mayor and Corporation of the City of Hull invite designs for the erection of a cenotaph on a site in Paragon Square belonging to the Corporation. Conditions of the competition, together with a plan of the site, will be supplied by the Town Clerk after 18 June, on receipt of a cheque for one guinea, which deposit will be returned to competitors on receipt of a bona-fide design. The estimated cost of the work amounts to £4,000, and premiums of £150, £75, and £50 are offered for the designs

placed first, second, and third respectively. The assessor is Mr. Stanley Hamp, F.R.I.B.A., whose decision will be final.

MR. J. GRAHAM FAIRLEY [F.]

Mr. J. Graham Fairley [F.] of Portobello, has been awarded a bronze medal for architecture at the present Salon Exhibition in Paris.

Notices

THE SIXTEENTH GENERAL MEETING.

The Sixteenth General Meeting (Ordinary) of the Session 1922-1923 will be held on Monday, 25 June 1923, at 8.30 p.m., for the following purposes :—

To read the minutes of the Fifteenth General Meeting (Business) held on 11 June 1923 ; formally to admit Members attending for the first time since their election.

To present the Royal Gold Medal to Sir John James Burnet, A.R.A., R.S.A., Hon. LL.D.

VISIT ARRANGED BY THE ART STANDING COMMITTEE.

A visit has been arranged, by the kind permission of His Majesty's Office of Works, to the new Pensions Building at Acton, on Saturday afternoon, 30 June 1923.

Members and Licentiates who wish for tickets should apply to the Secretary R.I.B.A. not later than Thursday, 28 June 1923.

ELECTION OF MEMBERS, 3 DECEMBER 1923.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the Election to take place on 3 December they should send the necessary nomination forms, etc., to the Secretary R.I.B.A., 9 Conduit Street, W.1, not later than 29 September 1923.

Board of Architectural Education

The General Board of the Faculties in the University of Oxford have authorised the course of lectures on "Medieval Architecture, with special reference to England and France," arranged by the Committee for the Fine Arts to be delivered next winter.

Mr. W. G. Newton, M.C., M.A. (Oxon.), A.R.I.B.A., has been appointed lecturer on the recommendation of the Royal Institute of British Architects.

Mr. Newton, who is a son, and was a partner, of the late Mr. Ernest Newton, R.A., was President of the Architectural Association in 1921. He is now a Member of the Council of the R.I.B.A. and editor of the *Architectural Review*.

Members' Column

COMMENCEMENT OF PRACTICE

MR. P. EDWIN STEPHENS [A.] has commenced practice at Midland Bank Chambers, Market Street, Falmouth (Telephone: Falmouth 263), and would be glad to receive trade catalogues, etc.

PARTNERSHIP WANTED.

ARCHITECT, Associate and F.S.I., having excellent connection, desires partnership with established firm of Architects, owing to insufficient capital to carry out works. Age 36. Replies treated in confidence.—Box 5623, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MINUTES

PARTNERSHIP WANTED.

F.R.I.B.A. desires partnership in busy office; 28 years' exceptionally wide and varied experience, home (including London) and Continental.—Apply Box 9428, c/o Secretary R.I.B.A., 9 Conduit Street W.1.

OFFICE FURNITURE FOR SALE.

ARCHITECT, retiring from practice about 21 July, desires to dispose of the furniture of a small office, including plan-chest (double elephant size, 8 drawers), trestle table (8 ft. by 5 ft.), writing table with drawers, cupboard, bookcase, drawing boards, T squares, etc.—This furniture may be viewed on application to the Housekeeper, 88 Gower Street, W.C., during ordinary office hours.

OFFICE FITTINGS FOR SALE.

TWO STACKS of seven drawers each, for "Imperial" sheets, 2ft. 6 in. by 2 ft. 9 in. by 2 ft. 10 in., plain deal. One chest of three drawer for "Double Elephant" sheets, 4 ft. by 2 ft. 8 in. by 1 ft. 3½ in., stained and varnished. Price for the three pieces, 12 guineas, carriage forward.—J. B., 8 Montague Road, Richmond, Surrey.

OFFICE TO LET.

A.R.I.B.A., having Offices in "The Temple," desires to let small unfurnished room to an Architect or Quantity Surveyor. Moderate rent.—Apply Box 1263, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

CHANGE OF ADDRESS.

MR. BASIL B. HOOPER [A.] has entered into partnership with Mr. J. W. Rough [A.] and is practising at 509 Smith Buildings, Albert Street, Auckland, N.Z.

ASSISTANT ARCHITECT FOR SHANGHAI.

AN ASSISTANT ARCHITECT is required in the Public Works Department of the Shanghai Municipal Council. Particulars regarding qualifications necessary, agreement, salary, etc., can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENT WANTED.

ARCHITECT'S GENERAL ASSISTANT, disengaged, competent to prepare sketch plans and elevations, and make working drawings, details, etc., draft specifications, survey and level, knowledge of church work, with good office routine. Moderate salary.—Apply Box 9929, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

Minutes XVII

SESSION 1922-1923.

At the Fifteenth General Meeting (Business) of the Session 1922-1923, held on Monday, 11 June 1923, at 8 p.m., Mr. Paul Waterhouse, President, in the chair. The attendance book was signed by 26 Fellows (including 12 members of the Council), and 26 Associates (including 3 members of the Council), and one Licentiate.

The Minutes of the Fourteenth Meeting held on 28 May 1923, having been published in the JOURNAL, were taken as read, confirmed, and signed by the President.

The Secretary announced the decease of :—

Sir Ambrose Poynter, Bart., elected Fellow 1906.

Mr. Albert Edwin Sawday, J.P., O.B.E., elected Associate 1882, Fellow 1891.

Mr. Frank Darling [F.], of Toronto, Royal Gold Medallist, 1915.

And on the motion of the President it was RESOLVED that the regrets of the Institute for the loss of these Members be recorded on the Minutes of the Meeting.

The following Members attending for the first time since their election were formally admitted by the President :—

A. R. Dent [A].

H. D. Sugden [A].

The following candidates for membership were elected by show of hands :—

As FELLOWS (12).

BHEDWAR : SORAB KEIKHUSHRO, B.A. [A. 1912], Bombay, India. Proposed by G. Wittet, Thomas S. Gregson, D. W. Ditchburn.

BIRKETT : ISAIAH ROBERT EDMONDSON [A. 1886], Manchester. Proposed by Edward Hewitt, Paul Ogden, George Hornblower.

GUNTON : WILLIAM HENRY [A. 1910]. Proposed by Alexander G. Bond, Percy Thomas, Sydney Perks.

HARRISON : JAMES STOCKDALE [A. 1898], Leicester. Proposed by Arthur H. Hind, Paul Waterhouse, H. V. Lanchester.

HEDGES : WALTER FREDERICK [A. 1921], Accra, Gold Coast Colony. Proposed by the Council.

JENKINS : GILBERT HENRY [Lic. 1911] (passed Qualifying Examination for Fellowship, 1915). Proposed by the Council.

JEWELL : HARRY HERBERT [A. 1920]. Proposed by A. Dunbar Smith, S. B. Caulfield, Owen C. Little.

LOFTHOUSE : JAMES ALFRED ERNEST, M.S.M. [A. 1895], Middlesbrough. Proposed by Thomas R. Milburn, W. T. Jones, Charles S. Errington.

LOFTHOUSE : THOMAS ASHTON [A. 1893], Middlesbrough. Proposed by W. H. Wood, R. Burns Dick, Charles S. Errington.

MAYHEW : ROBERT HENRY JEWERS, F.S.I. [A. 1901]. Proposed by A. S. R. Ley, Max Clarke, Herbert Shepherd.

SUTHERLAND : GEORGE [A. 1894], Aberdeen. Proposed by George Watt and the Council.

WIGFULL : JAMES RAGG [A. 1892], Sheffield. Proposed by Edward M. Gibbs, W. J. Hale, F. E. Pearce Edwards.

As ASSOCIATES (58).

BARTON : FRANK JAMES [Special War Examination], Bruton, Somerset. Proposed by Arthur J. Pictor, H. S. W. Stone, Lt.-Col. Peter G. Fry.

BENNETT : FRANK EDGAR [Special War Examination]. Proposed by Charles E. Varndell, Robert Atkinson, Edwin T. Hall.

BLAIN : ROBERT [Special War Examination], Glasgow. Proposed by Professor Charles Gourlay, John Watson, James H. Craigie.

BRADFORD : STANLEY VICTOR, M.C. [Special War Examination]. Proposed by Charles E. Varndell, Charles J. Smithem, H. R. Goodrham.

BRIDGWATER : DEREK LAWLEY [Special War Examination], Birmingham. Proposed by Professor C. H. Reilly, Ernest C. Bewlay and the Council.

BRIGGS : RICHARD WARD, B.A. [Special War Examination], Manchester. Proposed by Percy S. Worthington, Paul Ogden, Isaac Taylor.

BROWN : ALEXANDER WOOD GRAHAM [Special War Exemption], Shanghai, China. Proposed by the Council.

BROWN : JOHN GREY [Special War Examination], Longueuil, Quebec, Canada. Proposed by Professor Percy E. Nobbs, William Carless, Professor Ramsay Traquair.

BUTTON : CHESTER [Special War Examination]. Proposed by the Council.

CLARK : HENRY STANLEY [Special War Examination]. Proposed by G. Topham Forrest, Fredk. R. Hiorns, W. E. Riley.

CROMBIE : ALAN [Special War Examination]. Proposed by Sir John J. Burnet, Oswald P. Milne, Paul Phipps.

FINLAYSON : MALCOLM [Special War Examination], Heidelberg, Victoria, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.

GODWIN : WILLIAM JEAN THEODORE [Special War Examination]. Proposed by Robert Atkinson, Norman G. Bridgeman, Geoffrey Lucas.

GRAHAM : RICHARD DAVID [S. 1913—Special War Exemption], Belfast. Proposed by Alexr. G. Bond and the Council.

HAILE : WILFRED LETHABY [Special War Examination], Bristol. Proposed by C. F. W. Dening, B. F. G. Wakefield, W. S. Skinner.

HARDIE : JOHN STEWART [Special War Examination], Liverpool. Proposed by Arnold Thornely, T. F. Shephard, and the Council.

HART : EDWARD GOYEN [Special War Examination], Cape Town, South Africa. Proposed by Franklin K. Kendall, W. Hawke, Albert J. Thompson.

HENDERSON : WILLIAM ALEXANDER, C.M.G., D.S.O. [Special War Examination], Melbourne, Australia. Proposed by Robert J. Haddon, Rodney H. Alsop, Walter R. Butler.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

- HIGGINSON : FRANK [Special War Examination]. Proposed by Sir Reginald Blomfield, Sir Edwin L. Lutyens, Herbert Baker.
- HOWARD : GEORGE GFRARD [Special War Examination], Glasgow. Proposed by Professor Charles Gourlay, William J. Blain, David B. Hutton.
- HUNT : SPENCER GREY WAKELEY [Special War Examination]. Proposed by Maxwell Ayrton, Sir Edwin L. Lutyens, Gilbert M. Simpson.
- ILLSLEY : HUGH PERCIVAL [Special War Examination], Westmount, P.Q., Canada. Proposed by Professor Ramsay Traquair, Professor Percy E. Nobbs, Philip J. Turner.
- JEFFREY : JAMES ROWE [Special War Examination], Westmount, P.Q., Canada. Proposed by F. S. Baker, Professor Percy E. Nobbs, and the Council.
- JONES : IENAN ROLAND [Special War Examination], Llandudno. Proposed by T. Taliesin Rees, Professor C. H. Reilly, G. A. Humphreys.
- KING : WILLIAM [Special War Examination], Northwich, Cheshire. Proposed by A. E. Powles, N. W. Harrison, Frank B. Dunkerley.
- Kingston : JOHN LYNDHURST, B.Arch. (McGill) [Special War Examination], Ottawa, Canada. Proposed by Professor Percy E. Nobbs, Professor Ramsay Traquair, William Carless.
- KIRBY : STUART CAMERON [Special War Examination]. Proposed by Geoffrey Lucas, H. V. Lanchester, Robert Atkinson.
- LINDLEY : CECIL JAMES WILLIAM [Special War Examination]. Proposed by Arthur J. Pictor, Haydn P. Roberts, A. Morris Butler.
- McKAY : JOHN SIBBALD [Special War Examination], Perth. Proposed by Professor Charles Gourlay, Alexander N. Paterson, William J. Blain.
- MACKAY : ROBERT STUART STEPHEN [Special War Examination], Peterhead, Aberdeenshire. Proposed by Robert G. Wilson, junr., John W. Walker, J. A. O. Allan.
- MACKAY : NICHOLAS CHARLES [Special War Examination]. Proposed by Maurice E. Webb, Sir Aston Webb, Robert Atkinson.
- MARROTT : EDGAR SAMUEL, B.Arch. (McGill) [Special War Examination], New York City, U.S.A. Proposed by Kenneth G. Rea, Professor Ramsay Traquair, Philip J. Turner.
- MARSHALL : FRANCIS WILLIAM [Special War Examination], Birmingham. Proposed by Philip B. Chatwin, Edward Mansell, Edwin F. Reynolds.
- MARTIN : MARCUS WILLIAM [Special War Examination], Melbourne, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.
- MEE : CLIFFORD EDMUND [Special War Examination]. Proposed by Thos. E. Collyatt, Stanley Hamp, David Thomson.
- MORTON : HUBERT CONRAD [Special War Examination], Wellington, N.Z. Proposed by Robert Atkinson, Charles E. Varnell, Geoffrey Lucas.
- NESBITT : JOHN KENNETH [Special War Examination], La Tuque, P.Q., Canada. Proposed by Professor Percy E. Nobbs, Professor Ramsay Traquair, William Carless.
- NORCLIEF : ARTHUR JAMES [Special War Examination], Liverpool. Proposed by Gilbert Fraser, E. Bertram Kirby, Edgar Quiggin.
- NUNN : JOHN PRICE, B.A. [Special War Examination], Manchester. Proposed by Francis Jones, Percy S. Worthington, Paul Ogden.
- PAXTON : NORVAL ROWALLAN, M.C. [Special War Examination], Leeds. Proposed by John Watson, David Salmond, Sydney D. Kitson.
- PHILLIPS : HERBERT ERIC [Special War Examination], Hawkes Bay, New Zealand. Proposed by G. W. Allsop, Wm. Crichton, James Hector McKay.
- PICTOR : ARTHUR ROBERT DALZEL [Special War Examination], Bruton, Somerset. Proposed by Robert Atkinson, Arthur J. Pictor, George Edw. Withers.
- POPE : FRANK KENNEDY, A.R.C.A. [Special War Examination], Weston-super-Mare. Proposed by Professor Beresford Pite, Professor W. R. Lethaby, Alexr. G. Bond.
- PRIDEAUX : ARTHUR, M.M. [Special War Examination], Montreal, Canada. Proposed by Professor Percy E. Nobbs, William Carless, Professor Ramsay Traquair.
- RADFORD : THEODORE REGINALD [Special War Examination], Exmouth. Proposed by Harbottle Reed, James Jerman, Percy Morris.
- ROBERTS : CHARLES HENRY [Special War Examination]. Proposed by Edmund Wimperis, W. B. Simpson, C. Lovett Gill.
- SCOTT-WILLIAMS : PERCY [Special War Examination], Melbourne, Australia. Proposed by Rodney H. Alsop and the Royal Victorian Institute of Architects.
- SIMMS : HERBERT GEORGE [Special War Examination]. Proposed by Professor C. H. Reilly, John Murray, Sir Henry Tanner.
- SIMPSON : SIDNEY [Special War Examination]. Proposed by Maurice E. Webb, Sir Aston Webb, Robert Atkinson.
- SMITH : IRWIN GEORGE [Special War Examination]. Proposed by David Thomson, W. Bevan, Christopher W. F. Wheeler.
- STOTT : THOMAS [Special War Examination]. Proposed by John H. Woodhouse, Alfred Cox, W. Bevan.
- SYMCOX : EDGAR JOHN [Special War Examination]. Proposed by George H. Widdows, Harry G. Watkins, Albert N. Bromley.
- WARR : BERNARD GEOFFREY [Special War Examination], Birmingham. Proposed by Edwin F. Reynolds, G. Salway Nicol, W. H. Bidlake.
- WEBBER : ERNEST BERRY [Special War Examination]. Proposed by E. Vincent Harris, Professor Beresford Pite, Robert Atkinson.
- WIGGS : HENRY ROSS, B.Sc. [Special War Examination], Quebec, P.Q., Canada. Proposed by Professor Ramsay Traquair, Professor Percy E. Nobbs, Philip J. Turner.
- WILLIAMS : JOHN CARLTON [Special War Examination], Birmingham. Proposed by W. H. Bidlake, Herbert T. Buckland, William Haywood.
- WORT : WILLIAM SIDNEY [Special War Examination], Stamford, Lincs. Proposed by F. J. Lenton, Henry F. Traylen, Wilfrid Bond.
- WRIGHT : ALEC THOMAS [Special War Examination], Norwich. Proposed by Edw. T. Boardman, George J. Skipper, Edwin J. Tench.
- The Scrutineers' Reports, giving the results of the Annual Elections of Council, the Standing Committees, and the Hon. Auditors, were read, and the President declared the Officers, Members of Council and Standing Committees and Hon. Auditors duly elected in accordance therewith.
- Mr. H. G. Fisher [*I.*] stated that, in view of a possible appeal having to be made to the Privy Council with regard to the conduct of the Elections, he wished to enter a protest against the declaration of Election.
- On the motion of the Chairman, a vote of thanks was passed by acclamation to the Scrutineers for their labours in connection with the Elections.
- The proceedings closed at 8.20 p.m.
-
- R.I.B.A. JOURNAL.
- Dates of Publication.*—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



SIR JOHN J. BURNET, A.R.A., R.S.A., HON. LL.D. (GLASGOW)
ROYAL GOLD MEDALLIST 1923



The Royal Gold Medal

ADDRESS BY MR. PAUL WATERHOUSE, M.A., THE PRESIDENT

*Presentation to Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D. Glasgow, at the General Meeting,
Monday, 25 June 1923*

OUR Gold Medal night is for three reasons the best night of our year.

I put first among these reasons the fact that on this occasion, as often as it occurs, we recognise the substantial reality of the Royal protection under which we live. I do not merely mean that a tangible and ponderable piece of gold passes literally from Buckingham Palace to Conduit Street, though that in itself would be an act of kingly favour which we should all here appreciate, but that, by a deed of gracious symbolism, the grace of which is by no means either empty or formal, our monarch does actually submit us to the duty of making a choice on his behalf, does actually according to his Royal pleasure confirm our choice, and further does great honour to the President of the moment by allowing him to administer the Royal gift.

The second reason is that on this annual festival we bring to fulfilment the annual exercise of what may be called our critical generosity. Architects, though no outsider would guess it, are not always free from the chagrin of rivalry. I would not breathe the word jealousy, even if I were to whisper the word envy. But I have known circles in which the discussion of contemporary architecture was more tempered with justice than mercy, and a justice at that in which reproof was more conspicuous than applause.

But when the Gold Medallist is being sought for these feelings are absent. I have been in my time on many a Gold Medal Committee. I am unwilling to say that those committees have never made mistakes, but I can say that I have never known judgment marred by misguided partiality, malice or bias.

The contest has often been keen—as indeed it should be—for the prize is great and the competitors are good and many, so that those on whom falls (with the Council) the task of selection have often an embarrassing discrimination to effect. But the embarrassment I can truly say is never tinged with any spirit but that of the apparent equalities of claimants. Claimants I say, but the word is disastrous, for it can rarely if ever have happened that the medal has gone to one whose own voice has been raised in his favour. No, gentlemen, it is with ungrudging appreciation on the part of the selectors and with unassuming modesty on the part of the recipient that this world-honoured gift from the throne of old England finds its way from Giver to Receiver.

And the third reason of this evening's outstanding pleasure is the climax of the event itself. That an architect or an advancer of architecture should stand forth in an assembly of representative architects of this country as the one man, British or

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

foreign, chosen as the worthiest to receive their passing plaudits and their more permanent homage is as an event and a spectacle, something to move the heart, something to stimulate the young, something to vitalise in the minds of all the keenest sense of the nicety and brotherhood of art.

It is known to you all—for the Institute has spoken it, and His Majesty has graciously confirmed the word spoken—that the man on whom our purpose has been unanimously bent in this year's decision is

SIR JOHN JAMES BURNET,
an Associate of the Royal Academy of Arts and an Academician of the Royal Scottish Academy. His honours already are many. He holds the Doctorate of the University of his native Glasgow; Paris has given him that coveted distinction, honorary corresponding membership of the Institut de France, and twice has he won (in bronze and in gold) the medal of the Salon.

Of his executed works we all have knowledge, and among most Londoners that knowledge will relate chiefly to those works of his that are well-known landmarks in our own town.

There is no injustice in this, for our London examples are very interestingly typical of certain differences of method in Sir John's art.

The north front of the British Museum will, I expect, long remain a criterion of his genius, and it is a test of which its designer may well be proud. I have many a time preached a small sermon upon it, pointing out to young architects that only a man of the first rank would have had the continence and modesty to refrain from breaking the cool rhythm of that colonnade by an assertive central feature.

There is consummate art in the skill with which the central doorway receives just sufficient emphasis and no more. Centrality is here rather respected than encouraged or acclaimed. The very lions, a lovable pair, perform their duty with self-suppression, and not with emphasis.

In fact, so triumphant is the riot of reserve that I could grudge that little bit of decoration which on the metal work over the cornice whispers, "Here is the middle."

I have no idea where Sir John would place General Buildings in his own scale of comparative excellence, but I confess that to me it comes high. Its situation is happy on a convex frontage playing a movement of contrary flexure with the normal concavity of the Aldwych sweep. Sir John handles

his theme with a boldness worthy of the site and its size. He takes as his ground floor theme the motive which we may, I believe, respectfully call the Burnet architrave, a great granite ribbon, a yard wide, which rushes up the sides and, duly mitred, flings itself across the top, graceful with the general curve of the frontage, and grateful as any curved lintel would be for the support of the two massive columns which are the monarchs of the lower design. Behind the three-bay design thus formed on a segmental plan stands in a straight line and in delicate counter-rhythm the five-bay composition of the actual window plane.

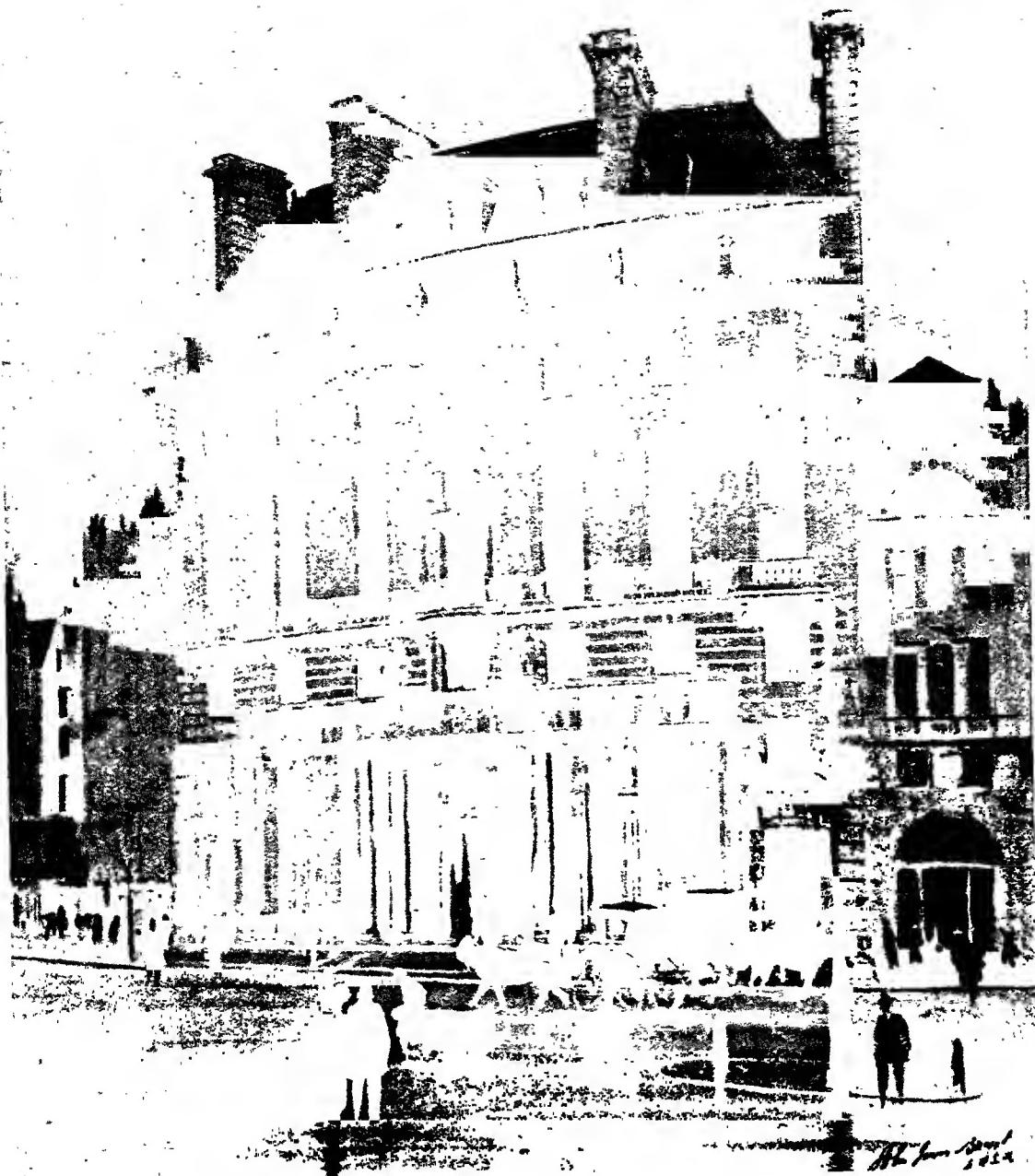
In totally different methods, different from this and from one another, are the Institute of Chemistry in Russell Square and the Kodak building in Kingsway. Both are evidences of the wish of the designer for fitness and directness, both a protest against that inflexibility of architectural invention which would make a man stamp with one family countenance buildings that bear no relationship to one another.

The Kodak Building, standing as it does in a street of structures which, if not pharisaic in propriety, are at least fairly normal in their adherence to an accepted level of architectural dressiness, is Sir John's great protest. As such it is admirable. The measure of the value of all protestantism varies inversely with the value of the thing protested against. A protest takes its own risks. It may not be the protester's fault if it outlives its purpose. Sir John himself will have wondered whether it wisely chose its place.

In Adelaide House, known at present by drawings only, we are happy to feel that Sir John is in control. Given the necessity for anything so vast, it is imperative that it should be handled by a giant. No architect could be trusted with it save a man with a great sense of mass and scale. In scale, in mass, our Gold Medallist is an expert, and we are happy, Sir John, to think that so great a responsibility is in the hands of one whose thought and execution are large.

Oxford Street, again, has its giant, and you are again the—I must not say the "giant-killer." Shall I say the giant's *nurse*, adding the conviction that you will not only nourish it into comely manhood but render it harmless to its smaller neighbours. I for one am happy in the certainty.

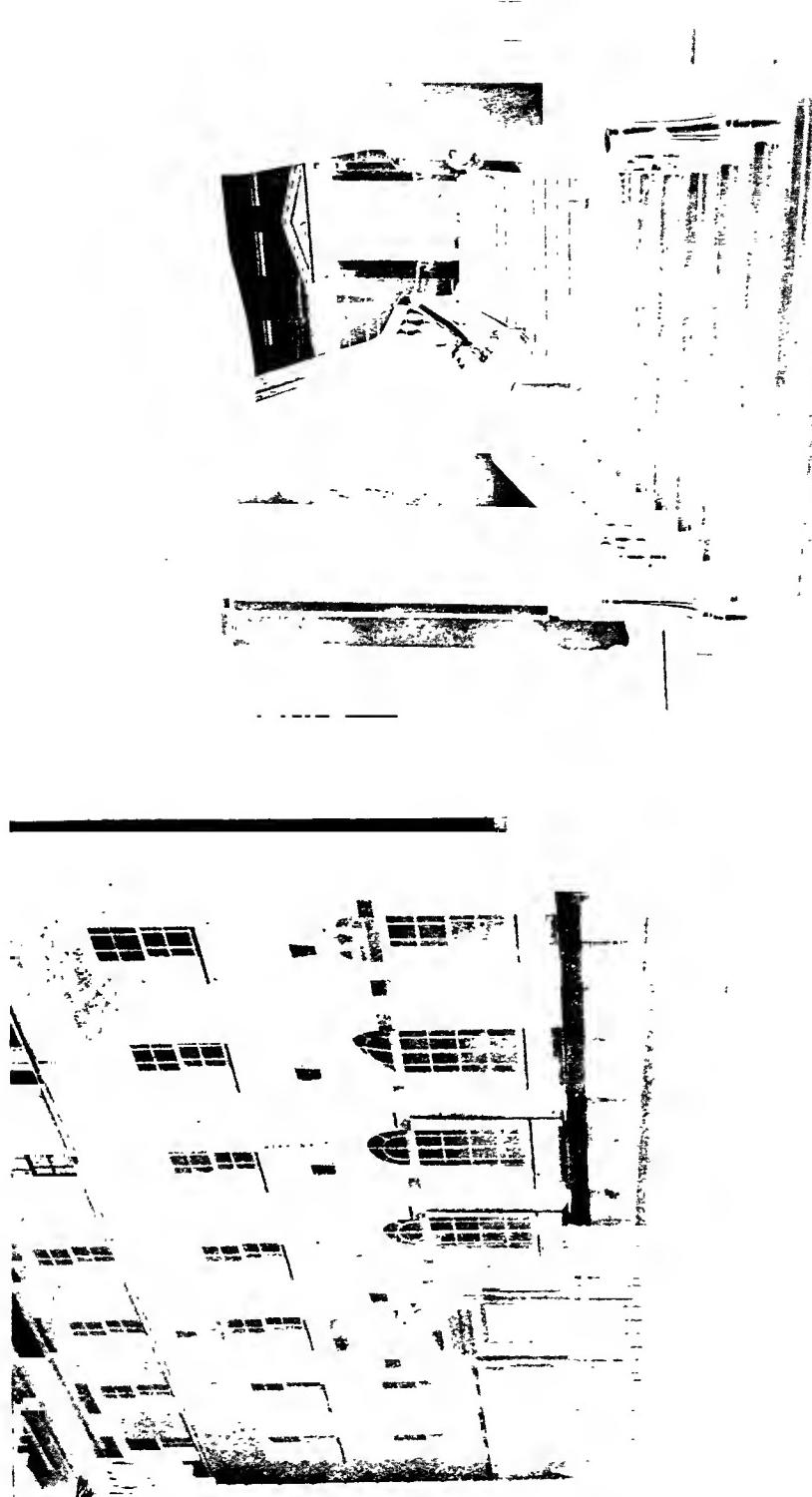
I am glad to be one of those to whom your works outside London are not unknown. I have prowled



GENERAL ACCIDENT, FIRE AND LIFE ASSURANCE CO.'S BUILDINGS, ALDWYCH, W.C.

FINE ART INSTITUTE, SAUCIEHALL STREET, GLASGOW—INTERIOR

INSTITUTE OF CHEMISTRY, RUSSELL SQUARE—GENERAL VIEW



THE ROYAL GOLD MEDAL

round and into the great Bath house at Alloa, I have more than once turned back in Princes Street to have another look at the ingenuity of Forsyth's shop, I have admired the subtle change of character between it and the stores in George Street, a change which typifies, I think, the different characters of the two businesses. I have lingered outside the Glasgow Athenæum, and have considered with a respectful smile the adroitly grave frivolity of the Alhambra in the same city.

Ladies and gentlemen, Sir John will have pardoned me, and you will have pardoned me also, I hope, for having looked at his work in the light in which I think he has designed it. It is not work which a man or woman with any sort of brain can pass with a mere "good" or "bad," still less with indifference.

Indeed, so often have I studied it, always with some stirring of my own thought, and so often will most of you have studied it also, that it would have been a mere insult to Sir John and a great deprivation to ourselves if silence had been kept

over those qualities which so alluringly arrest the attention.

Sir John James Burnet, it is in the name of His Majesty and on the most cordial initiative of your fellow British architects that this medal is given to you. I am the most fortunate channel of the transfer from the King to yourself, and I hope you will allow me to say with what pleasure and pride I now perform the last official act of my Presidency.

Addressing the French Delegates of the Franco-British Union of Architects who were present, the President said :

Messieurs les confrères français, notre ami Sir John Burnet, l'homme distingué auquel nous accordons ce soir le couronnement de son travail, est en quelque sorte de chez vous.

Ancien élève de votre superbe école des Beaux arts, il a gardé toujours la main un peu française, l'œil un peu parisien.

Ainsi, en célébrant aujourd'hui sa vie, son art et ses triomphes, nous offrons au même temps, de même coup, nos hommages à l'école de son origine.

Sir John Burnet's Reply

MR. PRESIDENT, LADIES AND GENTLEMEN,—

As exclusively a practising architect, whose life has been spent in meeting the responsibilities of the profession as they appeared to him, I feel peculiarly unfitted to do justice to the position in which, through your kindness, I now find myself. I am deeply conscious of the honour to which you, my fellow-members of the Institute, have elected me, and profoundly sensible of the distinction conferred upon me by His Most Gracious Majesty the King in approving your choice. But I fear, Mr. President, in the all too complimentary remarks which you have made regarding my work, tempted perhaps by that splendid command of language which we all admire and wish we possessed, you attribute to my work qualities of which I was never conscious.

Simple as architecture was at the beginning of my practice, now municipalities with a new realisation of their responsibilities aspire to the healthy housing of the working classes. Curative establishments are as numerous as they are complex, and merchants and manufacturers are housing their great and ever-changing organisations with a new responsibility towards their numerous employees.

Thus, from being a simple problem, it has become a complicated one.

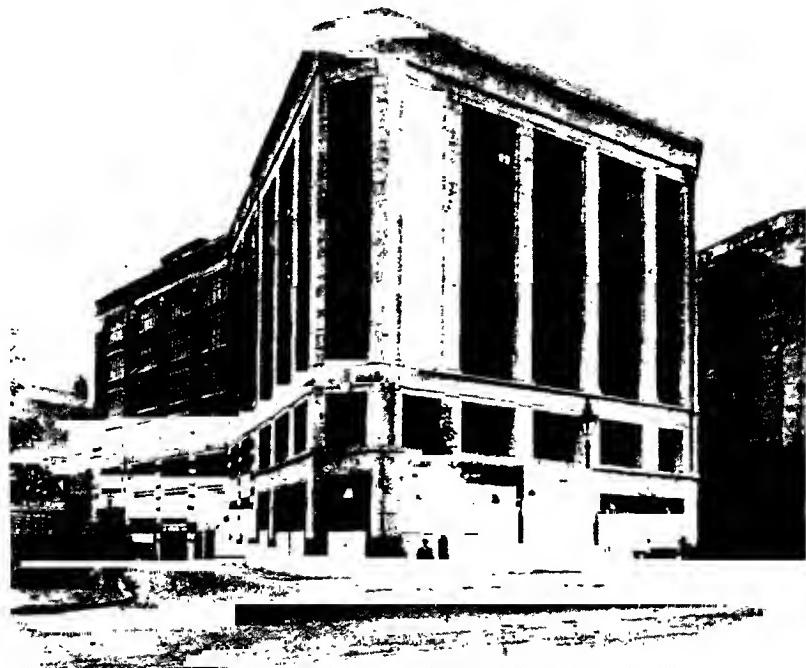
If it is true that an architect is here to serve his day and generation—and I think he is, and that it is at once his duty and his pleasure—what qualities must he not possess if he is to master all his clients' requirements and produce a building efficient for its purpose, suitable for its site, and so simple in its conception that it appears a perfect harmony, created without effort, a simple and beautiful monument to the integrity of purpose of the generation in which it was built ! There is no spurious originality in such work, no conscious individuality on the part of the designer. Our late colleague, Mr. Ernest Newton, speaking on architectural education, referred to his belief that there is all the difference in the world between the acquisition of knowledge of the art of architecture and the ability to apply that knowledge to the varied purposes of the day, and urged that the power of applying one's knowledge will best be obtained by the young architects serving the older and more experienced men of the day. I cordially agree with him, and believe that, as the work becomes more complicated, the truth of his remarks will become more obvious.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

During my long practice I have had many and varied opportunities, each seeming to be instinct with the life and thought of the day, and I have done my best to give each and all architectural expression compatible with its purpose, and that with such measure of artistic feeling as it was in my power to give. I have been favoured with the companionship of clients each keen on the purpose he had in view in building ; with the enthusiastic and sympathetic assistance of my brother artists, sculptors and painters ; and, in the execution of the work

loyal sympathy I doubt if the work you have so generously approved could have been done.

I again thank you, Mr. President, and through you, my brother architects, for the great honour you have paid me in adding my name to the list of Royal Gold Medallists, containing as it does the names of so many illustrious men, and you, I know, will understand me when I say that you could not pay me a greater compliment than to place me on a list bearing the name of my professor and lifelong friend, Jean Louis Pascal.



KODAK LTD., KINGSWAY

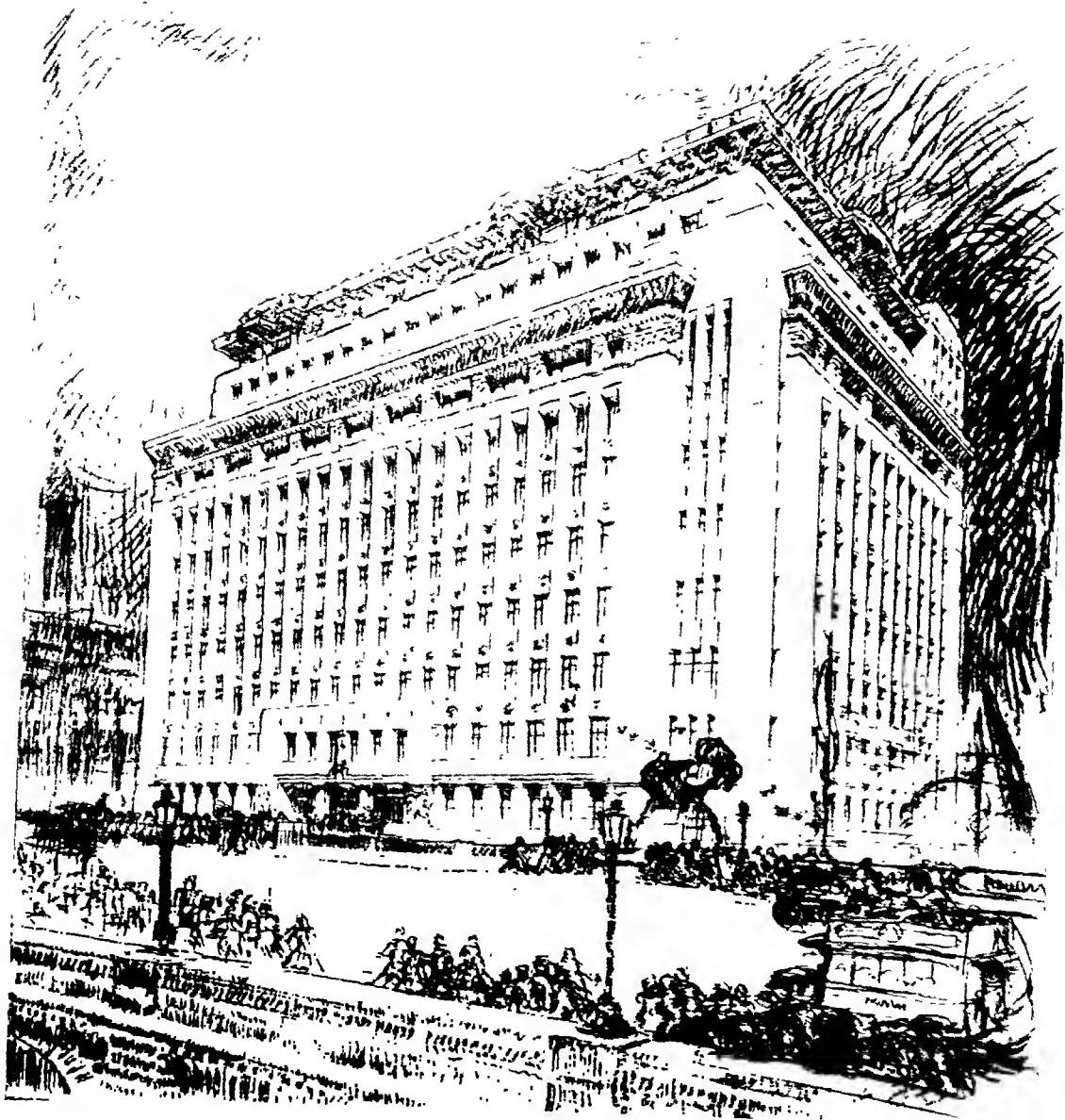
generally, with skilled craftsmen whose devotion, each in his own craft, went beyond payment. Could any architect desire more ? Is it astonishing that he enjoys his practice ; that he finds it difficult to do anything else than constantly, by travel and study, to make and keep himself equal to such work ?

Before I sit down I feel I must express my deep sense of indebtedness to all those who have been my assistants, many of them now in practice in different parts of the world, three being now my partners. Without their enthusiastic assistance and

M. J. GODEFROY, Vice-President of the Franco-British Union, said : Après des années si mouvementées, au cours desquelles nous avons écrit quelques grandes pages de l'Histoire ensemble, nous voici réunis tous, une fois de plus, dans la belle capitale de l'hospitalière Angleterre.

Permettez-moi de vous exprimer tout le plaisir que j'éprouve personnellement ; ainsi, je suis bien certain que je traduirai les sentiments intimes de tous mes compatriotes qui sont ici et vous imaginerez mieux encore les regrets de ceux qui sont absents.

Comme j'ai déjà eu l'honneur de vous le dire à notre arrivée, si nous ne sommes pas plus nombreux, c'est



ADELAIDE HOUSE, LONDON BRIDGE

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

qu'un grand nombre d'entre nous sont occupés par les travaux de reconstruction de nos régions dévastées ; ceux-là continuent à leur manière de faire campagne ; car, hélas ! vous le savez, toutes les tribulations de la guerre n'ont pas été finies pour tous les Français quand s'est levé le jour lumineux de l'armistice.

Avec quel plaisir renouvelé nous venons vous visiter, chers amis anglais, vous qui êtes les plus hospitaliers des hommes, vous qui avez l'hospitalité si franche, si cordiale ; et quand on vous a vus chez vous, dans votre intimité, dans votre *home* où vous semblez avoir disposé toutes choses pour le bonheur honnête et paisible, il nous semble qu'à vous fréquenter nous nous complétons en votre compagnie.

C'est que nous savons bien ce qui nous manque : un peu de votre esprit pratique, si aimable, qui vous rend plus facile la vie aussi bien dans le plus somptueux des palais que dans la plus humble demeure. Il n'est pas jusqu'à vos campagnes dont les paysages mêmes semblent ordonnés pour le repos de l'esprit, qui ne donnent une leçon de calme, d'ordre ; et rien qu'à voir vos charmants cottages on aspire au bien-être et à l'existence heureuse.

Comme nous devrions, nous Français, vous visiter plus souvent ! Mais il faut espérer que nous allons devenir moins casaniers, à mesure que les plus hautes montagnes sembleront davantage des mottes de terre qu'on aura presque l'air d'enjamber et que les plus larges mers ne seront plus guère que des ruisseaux qu'on aura l'illusion de sauter.

Que de beautés nous avons encore à découvrir chez vous ! A chaque visite nous faisons connaissance avec de nouvelles. Rien que vos superbes collections valent plusieurs voyages ! Vous, vous n'ignorez rien des nôtres pas plus que vous n'ignorez notre belle langue dans laquelle je dois vous parler aujourd'hui puisque je ne connais pas la vôtre. Mais, je le regrette, car je sais qu'elle est celle d'admirables poètes, celle dans laquelle votre Shakespeare atteignit aux plus hauts sommets du génie ; celle de quelques uns des plus beaux lyriques de tous les temps.

Tout cela vous dit assez, je crois, que nous ne nous fréquenterons jamais trop. Je le pensais avant la guerre. Comment ne le penserions nous pas tous, depuis que le

sang versé ensemble a créé entre nous d'indissolubles liens.

At the conclusion of his speech, M. Godefroy referred to Sir John Burnet's training in Pascal's atelier, which he said wrought another link in the chain of association between the two countries.

M. G. Legros, the President of the Société des Architectes diplômés par le Gouvernement, also addressed the meeting.

Sir John Burnet, the son of John Burnet, one of Glasgow's foremost architects, was born in 1857. He obtained his professional education at the Ecole des Beaux Arts under the professorship of the late Jean Louis Pascal : and began his architectural career in the office of his father in Glasgow.

Sir John is an Associate of the Royal Academy and a Royal Scottish Academician. He holds an Honorary LL.D. degree of Glasgow University. He is a Fellow of the Royal Society of Edinburgh and of the Society of Architects (Scot.) ; a Corresponding Member of the Institute of France, of the Société Central des Architectes Français, and of the American Institute of Architects. He holds a Bronze Medal from the Salon for the King Edward VII Galleries, British Museum Extension ; and a Gold Medal (1922) from the Salon for the exhibition of various works, notably that of Adelaide House, London Bridge (now in course of erection).

LIST OF SIR JOHN'S PRINCIPAL WORKS.

King Edward VII Galleries, British Museum Extension ; Institute of Chemistry, Russell Square ; Kodak Building, Kingsway ; General Accident Assurance Company's Building, Aldwych ; Selfridge Extension ; Adelaide House, London Bridge (in course of erection) ; Second Church of Christ Scientist, Sunday Schools and Office Buildings, London (just completed) ; Scheme for the Lay-out of the Sea Front, Ramsgate (East Cliff Gardens) ; redecoration of the Merchant Taylor Company's Hall, London ; Institute of Fine Arts, Glasgow ; The Athenæum, Glasgow ; head office of the Clyde Navigation Trust, Glasgow ; extensions to the Western Infirmary, Glasgow ; extensions to the University, Glasgow, Students' Union, etc. ; Royal Hospital for Sick Children ; head offices of the Union Bank of Scotland, Glasgow ; the Barony Church, Glasgow ; Elder Library, Govan ; Atlantic and Waterloo Chambers, Glasgow ; Charing Cross Mansions, Glasgow ; Arbroath Parish Church ; Arran Church ; Gardner Memorial Church, Brechin ; Alloa Baths, Alloa ; Wallace Scott and Co.'s Warehouse, Cathcart ; premises for R. W. Forsyth, Princes Street, Edinburgh ; Edinburgh International Exhibition, 1886 ; The Alhambra, Glasgow. Sir John is also the architect for the War Cemeteries in Gallipoli and Palestine.



From an engraving by Wenceslaus Hollar

EDINBURGH

The R.I.B.A. Conference in Edinburgh

The Annual Conference of the Royal Institute of British Architects, with which was combined the Annual Convention of the Incorporation of Architects in Scotland, was opened in the City Chambers, Edinburgh, on Thursday, 14 June. Mr. J. Alfred Gotch, F.S.A., President-elect of the R.I.B.A., occupied the chair in the absence of the President, Mr. Paul Waterhouse, and the members of the conference numbered nearly 300. A civic welcome was extended to the members.

Lord Provost HUTCHISON : It is a very great pleasure for me to meet the members of this conference this morning, and on behalf of the Corporation to extend to you all a very cordial welcome to the ancient capital of Scotland. Those of you who are visiting Edinburgh for the first time will, I think, find it has a charm and interest for you. You will discover in the old town and in the new town many beautiful examples of ancient and modern architecture. I understand that the Royal Institute of British Architects and the Incorporation of Architects in Scotland have combined on this occasion to hold their annual conference here, and we are very glad you have chosen Edinburgh as your meeting place. The profession of architecture is one which is of great importance to every community, and in Edinburgh it holds a worthy and honoured place. In these days, particularly when the housing question is of such pressing importance, it is essential to have the benefit of the experience, knowledge, and advice of architects in dealing with the many problems and difficulties with which we are faced, and it is gratifying to know that that assistance is always willingly forthcoming. The Royal Institute of British Architects, I believe, is a somewhat older body than the Scottish Incorporation, which received its Charter last year, and which owed its initiation in 1916 to the late Sir Rowand Anderson, through whose

liberality it has been so well endowed. Your organisations, I understand, have been formed for the purpose of uniting in fellowship the architects of the country for the promotion of the æsthetic, scientific and practical efficiency of your profession ; to promote and facilitate the acquirement of knowledge of the various crafts, arts, and sciences connected with architecture, and to foster the study of national architecture and encourage its development. With these objects and aims before them British architects can look forward with every confidence to the future. Again, let me say we very heartily welcome you here to-day and trust that your conference will have useful and fruitful results.

The CHAIRMAN (Mr. J. Alfred Gotch) : On behalf not only of the architects of Great Britain, but of the whole of the British Empire, I beg to thank you, sir, for the very kind reception which you have given us. I say of the whole British Empire because the architects of Australia have formally appointed Major Corlette to represent them in England, and he is here on their behalf to-day—an interesting reminder that the Royal Institute of British Architects and its allied societies cover practically the whole of the inhabitable globe. You have referred to the City of Edinburgh as being of great interest. I am sure those who know it, and those who do not, will soon ascertain that it is one of the most romantic cities in Great Britain—I am not certain that it is not one of the most charming and impressive cities in the whole of Europe. On behalf of the architects I have to thank you for your kind welcome.

The Lord Provost and several of the City Magistrates who accompanied his Lordship having withdrawn,

The CHAIRMAN said : I understand that the President (Mr. Waterhouse) has been detained and cannot be present to-day. In a deputy capacity, therefore, I have great pleasure in calling upon Mr. Marwick to read his paper.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

“ EDINBURGH : ITS RISE AND PROGRESS ”

BY T. P. MARWICK [F.]

PRELIMINARY.

MR. PRESIDENT, LADIES AND GENTLEMEN,—I have been asked to read a short descriptive paper on “ Edinburgh : Its Rise and Progress,” as a local Fellow of the Royal Institute, although I represented to the Secretary here that few cities could be so well known, or have had expended upon them such a wealth of literary effort. For those visitors, however, still unacquainted with it, I shall endeavour to focus in the thirty minutes allotted to me the leading factors which give to this picturesquely interesting and historically fascinating old capital of Scotland its place in the affections of the world.

OLD EDINBURGH.

The city is readily separable into two parts, the “ Old ” and the “ New.” Let us look at “ Old Edinburgh ” first. One never hears the words but they seem to ring a call-bell in the brain. They are woven into the very texture of our lives. Instantaneously, as by the quick turn of a kaleidoscope, we visualise a series of pictures of our ancient burgh all down the centuries. The whole scenic development flickers on our mental screen like the film of a cinematograph. To residents it is a subject of perennial interest, possesses an extraordinary fascination, and has a subtle magnetism emanating from their knowledge of its historical development, their daily contact with its many picturesque features, and their natural pride in its prestige as the ancient capital of their beloved country.

On arrival in the city the eye naturally gravitates towards the castle, as no doubt did that of the military Roman. This rocky crest at once attracts attention as a natural fortress of great strength, and capable of ready defence. Its existence, coupled with the configuration of the land around it—moulded by Nature in the distant ages of the prehistoric past—determined its destiny. Around this coign of vantage clustered the huts of our forefathers, while the natural ridge, about a mile in length, which stretched eastwards, until it reached the valley 300 feet below in which the monastery of Holyrood ultimately came to be built, was the inevitable line of its growth. You are sitting now about the centre of this ridge which has been called the backbone of the old city. The beginning took the form of wooden, straw-thatched houses, which were destroyed and replaced time and again in the constant ebb and flow of the struggle for possession and mastery, until the light of history dispelled the veil of mystery which enshrouded it. We need not count the work of the Romans in the first five centuries of our era, nor that of the Anglo-Saxons in the next. These years may be epitomised as alternating periods of peace and war

with the castle as the object of possession, until in 1020 it became the residence of royalty on the cession of the Lothians to the Scots. In 1093 Queen Margaret, wife of Malcolm III, died at the Castle, and you will to-day see her little chapel with some of its Norman architectural features still intact.

About 1128 King David I founded the Abbey of Holyrood at the foot of the slope on the site of a pre-existing Celtic church.

In 1174 the castle was surrendered to Henry II. In 1186 it was restored to the Scots on the marriage of the king to an English princess. In 1230 Alexander II, who also married an English princess, resided in the castle and founded the Monastery of Blackfriars. In 1291 the town and castle were surrendered to Edward I. In 1327 Robert I held a parliament at Holyrood. In 1332 Edward III plundered the city, and, indeed, it may be said that Edinburgh was a veritable cockpit wherein the two nations were constantly in the ebb and flow of war, with attacks, defeats, victories, surrenders, and bloody battlings too numerous to chronicle.

When Froissart, the French traveller, visited Edinburgh in 1364, he described it as containing about 400 houses and 2,000 of a population. He calls it the “ Paris of Scotland.” In the year 1385, when Richard II made an unwelcome call, he amused himself by reducing this rather meagre town to ashes. In 1544 the same thing occurred under the Earl of Hertford. Those were the little amenities which were being constantly exchanged between England and Scotland before the days of British Architects’ Conferences.

In 1437 Edinburgh became the capital of Scotland and James II was crowned there, and by Charter dated at Stirling in 1450 conferred the privilege “ to fosse, bulwark, wall, tour, turate, and utherwais to strengthen the burgh, in what manner of wise or degré that beis maist spectefulle to the provost, etc., of Edinburgh who lived at the time in dred of the evil and skaith of our enemies of England.”

In 1460 this defensive wall was built. Only two sides of the city required to be enclosed, as the Castle, and the North Loch which filled the valley in which is now the Railway Station—a convenient place for the ducking and drowning of witches—protected the other two. Indeed, the whole length of walling was only 1,660 yards, and the total area enclosed was but 55 acres, or one-twelfth part of a square mile. After Flodden in 1513 the area was extended by building a new wall at the base of the escarpment, for the protection of the houses which had been erected outside the original wall of circumvallation. Another extension was made in 1620. Still at the time of the Union with England in 1707 the

"EDINBURGH : ITS RISE AND PROGRESS "

enlarged area was only 117 acres. I had a rather unique opportunity some years ago of measuring a portion of this wall and found it to be 18 feet high and 5 feet thick. Although long since destroyed there had been a parapet on the top, for it is so stated in a document of the time, and it is there given as 6 feet high and 2 feet thick, with embrasures for cannon. The total height of the wall was therefore about 24 feet. It formed a good protection in such times, and, indeed, was described as "of vast strength." But strength is a relative term. The weapons of to-day would have made it crumble to pieces as rapidly as those of Jericho did on much less provocation.

It has been found from an examination of early charters that most of the sites on the main street were only about 25 to 30 feet in width. The original buildings had back gardens stretching down the slope to the loch on one side, and to the valley of the Cowgate on the other.

As congestion increased within the restricted limits of this mediæval walled city, each owner rebuilt the front tenement, and formed an opening or access archway and pend through it. A narrow open close, a few feet in width, was then continued for the remainder of the length down the steep hillside. These closes were private property, and were margined with lofty buildings in long parallel ranges, with quaint corbelings, timber projections, dormer windows, outside stairs, and piazzas all in picturesque combination. In the houses resided aristocratic denizens and legal luminaries arranged in six, seven, eight or nine horizontal layers one above the other. Sanitation was an unknown science. While "the far away and long ago" has a strange fascination, we may all agree with Anatole France when he says that "the charms of the past exist only in our dreams!" There was no privacy. You could shake hands with your neighbours across the close, for successive projections nearly met each other and left visible but a streak of sky. You could readily sense his dinner menu, hear his wife expatiate to him on matters of domesticity and teapot humdrum, or listen to the pleadings of his progeny when Solomon's apophthegm as to the chastening of a son was being given practical demonstration. No more insanitary arrangement could have been invented, the one and only merit being that the closes ran north and south and were swept by the prevalent winds. In the closes of the Canongate alone, as late as 1769, there were living two dukes, eighteen earls and countesses, fourteen lords, thirteen baronets and a host of eminent men.

I have measured and ascertained that there were over ten miles of these closes on the main thoroughfare, while the gradients showed the difference in level between one end and the other to be sometimes as much as 100 feet. There were 294 closes exclusive of those in the suburbs.

The city continued to grow in this restricted area, and

these lofty structures became the prototype of our tenemental development. It was the beginning of intensive and extensive exploitation of central land areas. Here was a great congeries of buildings filled with people all huddled together for mutual protection. It was no doubt vastly picturesque and interesting, with its turnpike stairs, its turrets, its quaint mottoes, its pious inscriptions, its coats of arms, its crow-stepped gables, and its panelled walls. But to-day where they still exist they spell of the peril of disease. There are fifty thousand souls resident in the two central wards of St. Giles's and Canongate alone. In one common stair quite recently there were forty-six separate houses. Incidentally I may mention that there are 150 licensed shops in these two wards, or one-fourth of the whole number in the city. Misery and death lurk in such an environment which is so far behind present-day ideals. Infantile mortality in a modern garden town like Letchworth is at the rate of 30 per 1,000. In these wards it is 134, or 4½ times greater. One's heart bleeds for the children reared in such surroundings. The death rate is double what it is in the suburban districts. The density of the population in one ward is about 100 per acre as compared with an average of 13 for the whole city, which shows that there is a relationship between the death rate and overcrowding. As the Italians say, "Where the sun does not go the doctor goes."

Edinburgh has at the present time a very enlightened Corporation, and they are making strenuous efforts to improve matters. You can understand, with a city built for defensive purposes on the lines described, how slow, how difficult, and how expensive a matter this must be. Care is being exercised to preserve our historical structures. Too many have been destroyed in the past, but there is now a strong desire to have what is left preserved and restored to healthy habitability, handled reverently, and with sympathetic care. They do not desire to make a fetish of antiquity, or to cultivate a spurious veneration for what is old simply because it is old, but they have no sympathy, I am sure, with vandalism carried out in small systematic doses until no shred of the original is left. The history of a nation is written in its buildings. They record with unerring precision its age and fateful past. They are the milestones on the highway of civilisation and progress.

NEW EDINBURGH.

Let us now look at "New Edinburgh." Up to about 1750 the city was confined to the district lying between the Castle and Holyrood. With the Union there came a slow-growing desire for betterment. The citizens determined to burst the cincture which girded in these congested masses of people.

In 1763 the North Loch was drained, and the North Bridge was commenced which was to give access to the fertile fields towards the estuary of the Forth. It col-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

lapsed in 1769 during construction, but in 1772 it was finally completed and opened. It was then decided to hold a competition, with the view of endeavouring to obtain the best lay-out for the ground to be built upon, and that by Mr. James Craig was selected and adopted in 1767. His scheme embraced the whole length of Princes Street from east to west, and from Princes Street to Queen Street Gardens from south to north. George III was much interested in the scheme, hence the names of George Street, Charlotte Square (after his Consort), and Princes Street after his heir. The plan consisted of a series of parallelograms, long vistas margined by uniform rows of houses, with gardens and squares. As showing the appreciation of the people at that time the successful architect was honoured by being presented with a gold medal and the freedom of the city. One would like to see to-day similar public appreciation when good work is done by members of a noble profession.

By the year 1800 the whole scheme had been completed. The area north of Queen Street Gardens from Bellevue Crescent to India Street was then undertaken in 1806, all plans being matured by agreement between the various owners and feuars. This method was unfortunately abandoned at a later date and individual land-owners developed their holdings independently. Co-ordination is essential if any satisfactory scheme is to be evolved for the development of a city.

In 1816 Mr. W. H. Playfair, the architect, prepared a plan for the lay-out of ground towards Leith Walk and Easter Road, but only London Road, Hillside Crescent, Royal, Regent and Carlton Terraces were ever executed. The remarkable thing about these schemes was the entire absence of areas for public works. It appeared as if all the inhabitants of Edinburgh were to be residents of means living in large self-contained mansions.

In 1768 Craig had little to inspire him in the way of town planning on spacial lines. It is true that Sir Christopher Wren in 1666, one hundred years before, had designed a lay-out for the City of London immediately after the Great Fire. It was a magnificent plan comprising the area within the Walls from Ludgate to Aldgate, and Billingsgate to Cripplegate, but it failed to materialise owing to the cupidity of the owners. If it had been carried out it would have proved an immeasurable boon and saved millions of money. Wren's plan, again, was no doubt inspired by that of his predecessor, Inigo Jones, at Lincoln's Inn Fields, and possibly by Bernini's plan of the approaches to St. Peter's at Rome. Edinburgh, however, was undoubtedly a pioneer in Town Planning on a large scale, although Bath had "Queen's Square" in 1729 and the "Circus" in 1764. It has been called "the greatest scheme of the age," but, of course, as we all know, many ancient cities were specially planned. The plans carried out combined dignity, wide roadways, ordered buildings, long vistas, and

tree-clad squares and terraces. Their practical realisation, no doubt, influenced the town-planning schemes of to-day.

I may note that Edinburgh Town Council is still faithful to past traditions. A Consultative Committee has been recently appointed to co-operate in the work of developing the city on right lines, to have its growth carefully and systematically regulated, to have faulty street planning prevented, and objects of historic interest preserved. There are two architects on this Committee. By and by one hopes there will also be an Advisory Fine Arts Committee such as exists in New York and other American cities, to influence the production of worthy buildings and to see that all the accessories of a beautiful city are created and maintained.

If you look at the Register House building, designed by Robert Adam, which is a gem in its way, and consider what efficient town planning in the eighteenth century could have done when land was practically available free, you can see what a splendid opportunity was lost for the creation of a fine Civic Centre. It was an irreparable error caused by lack of wise forethought.

I may explain that the English leasehold system does not obtain in Scotland. Building land is given off in lots by way of perpetual feu. The total ground rents obtained for the whole area first described in Princes Street was only equal to an average capital value of 4d. per square yard. Parts of this land now fetch £100 to £150 per square yard, or nine thousand times the price it was 150 years ago. This increment does not improve the financial position of the original land-owner. It passes entirely from owner to owner of the property, and finds expression in the price obtained.

PUBLIC PARKS AND OPEN SPACES.

Coming now to public parks and open spaces in the city, I may say that the total area of these extends to 1,836 acres, or one acre for 229 souls. This includes Leith, which, previous to amalgamation, had only one acre to 1,148 souls. There will be further liberal allowances in the future, but at present there are 36 public parks, 73 tennis courts, 29 bowling greens, 4 golf courses, 10 short hole and putting courses, 68 football pitches, 9 cricket pitches, and 15 children's playgrounds and gymnasiums. The American Park and Outdoor Association, in its report for 1901, suggested as an ideal one acre to 200 inhabitants, while other authorities propose one acre for 250. Edinburgh, having already one acre for 229 inhabitants, occupies a very favourable position.

The citizens are fully alive to the necessity for a spacious environment, an amplitude of open areas for parks and recreative purposes as tending towards a gradual and sustained improvement in the physique of young and old. As a community our desire is to reach out towards a higher standard of civic life.

"EDINBURGH: ITS RISE AND PROGRESS"

STATISTICS.

As to statistics, I have mentioned that in the year 1300 the population was 1,200, and in 1364, 2,000. By the year 1800 it had increased to 67,000, by 1851 to 160,000, while to-day it is 420,000, or 210 times larger than in Froissart's time. You have heard that the total area enclosed within the fortified wall was originally 55 acres. To-day it is 32,401 acres, or $50\frac{1}{2}$ square miles—that is, 589 times larger. It is much larger than Glasgow, Liverpool, Manchester, Leeds, Sheffield, or any other provincial city except Birmingham.

Since the recent extension there are now only three administrative authorities in the city in place of fifteen, and two rating authorities in place of ten.

The gross yearly rental value is just about five millions, while the assessable rental is £4,382,955. The total rates on owner and occupier combined amount to 8s. 6d. per pound, but it may be explained that the burgh rate is chargeable on the gross rent, and not on the net as in England. The municipal debt is only six millions, whereas Leeds, Sheffield, and Bristol, with somewhat similar populations, have respectively twelve, ten and nine millions. The debt of Manchester is twenty-two, Birmingham eighteen, Glasgow fifteen, and Liverpool ten millions.

There are 95,224 occupied houses which give an average of 4·41 persons for each, while 4·7 per cent. of the population live in one-roomed houses and 55 per cent. in two- and three-roomed houses. While the density is 13 per acre, even after absorbing Leith, which had a density of 72 per acre, I may note that the average of twenty of the largest towns in the country is 17·3. Leeds has a density of 17·23, Birmingham 19·27, Stoke-on-Trent 21·05, Aberdeen 25, Manchester 32·92, Dundee 28, Liverpool 35·5.

INDUSTRIES AND MANUFACTURES.

Edinburgh is a university town and a great educational centre. It is the seat of the Supreme Courts of Law. It is the home of many industries, and is in the vicinity of a network of coalfields and the principal shale areas of the country. It was one of the first places to possess a printing press. In 1507 one was set up in the Cowgate, and a copy of the Bible at that time cost £4 13s. 4d. All persons worth £500 were compelled to buy a copy or pay a fine of £5. About 1750 the city became noted as a printing centre, and obtained a world-wide reputation which it still maintains. There are quite a number of breweries, which are dependent upon a constant supply of permanently hard water of a peculiar quality obtained from the strata of the Upper Old Red Sandstone as developed in the southern district of the city. Paper manufacturing is a considerable industry, the raw material being landed at Leith—linen rags from Central Europe, esparto grass from North Africa, and wood pulp from

Scandinavia. A large amount of milling and baking is done, while the city is surrounded by a rich agricultural neighbourhood. In commerce and finance 40,000 people are engaged, in shipbuilding and engineering 20,000, in the professions 16,000, in printing and papermaking 12,000, in the building trades 8,000, in rubber manufacture 6,000, while large numbers are employed in the manufacture of food and tobacco.

Edinburgh is one of the largest distributing centres of electrical power, and that should prove a powerful attraction for new industries. There is no doubt that large works in a city tend to bring others, while the bigger the city the more powerful the influence it exerts over industries. Edinburgh may become a great seaport, for it possesses 333 acres of docks at Leith, and has a magnificent seaboard ten miles long. We see visions that in the near future it will be a throbbing hive of industry, and a centre of great commercial importance.

ARCHITECTURE.

As to the architecture of Edinburgh there is no need to refer further to what is interesting or worthy in our old buildings. The architectural features of the Old Town have been sufficiently indicated. The towers, turnpike stairs and crow-stepped gables and other picturesque features were chiefly influenced by French examples, the result of the close association between Scotland and France in the Middle Ages.

Of late eighteenth century work it may be noted that Robert Adam designed the University, the Register House and Charlotte Square. Charlotte Square is a good example of Adam's work. It is all his design except the church on the west side, which is by Sir Robert Reid, and much inferior. Thomas Hamilton designed our magnificent High School, and W. H. Playfair the classical Galleries in Princes Street. Other interesting structures, in addition to those to be examined to-day, are Craigmillar Castle, Greyfriars Church, McEwan Hall, St. Giles's Cathedral, Thistle Chapel, George Heriot's Hospital, Stewart's College, Fettes College, Scott Monument, and some fairly good modern buildings, but not so good as they might be. The Dean Bridge is a fine design by Telford. Ruskin said: "Of all the cities in the British Isles Edinburgh is the one which presents most advantages for the display of a noble building, and which, on the other hand, sustains most injury in the erection of a commonplace or unworthy one."

DISTINGUISHED INHABITANTS.

Of the great people of the past who were natives of Edinburgh, have lived in, or been closely associated with it at some period of their lives, I need scarcely speak, as their names are familiar to everyone—Mary Queen of Scots, Charles Edward Stuart, John Knox, Sir Walter Scott, Robert Louis Stevenson, Carlyle,

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Adam Smith, David Hume, Allan Ramsay, Dr. John Brown, Robert Fergusson, Jeffrey, Brougham, Cockburn, Drummond of Hawthornden, Mrs. Oliphant, Smollett, Oliver Goldsmith, Shelley, "Christopher North," Sir David Baird, the hero of Seringapatam, General Dundas, who captured Cape Town, Admiral Duncan, the hero of Camperdown, Burns, De Quincey, Boswell, Sir James Simpson, many eminent artists, and endless others.

CONCLUSION.

I have now shortly and hurriedly given you a little sketch of the fundamental facts about this city. Its topography, its burgeoning and blossoming down the centuries, its historical development, its architecture, statistics, open spaces, industries and manufactures, and the procession of notabilities who knew it for the brief years which constituted their lives before passing into the Great Silence. Generation after generation has arisen to come under the spell of its glamour and magic witchery. It is a city which attracts and lures everyone from far and near, nor do they ever weary of hearing again, and yet again, its old, old story, for it is a subject somewhat akin to human love and human frailty, ever old yet ever new. One would love to linger longer on a subject which touches so intimately our sentiment and imagina-

tion. The old buildings, though voiceless, seem still to speak to us of the long buried past, and to whisper in our ears the tales of other times and other manners.

I ask you to go out into the fair fields which environ the city, and, from a lofty view-point, look towards it when it is bathed in the golden haze of the noonday sun, lustrous, burnished, radiant. There it lies between the foothills of the Pentlands and the sea in all its picturesque fascination, surrounded by the everlasting hills, those silent sentinels which brood over it through the centuries like a mother over her children. Mark its towers and its spires piercing the skies, and if you come to it as a stranger in a mood of peace and restfulness you may say, "This is a Dream-City," and you are not, as you may be in the Orient, disillusioned on closer acquaintance. You will not deny that it is a city redolent of charm and beauty : a city of castle, sea and distant mountains ; a royal and incomparable city ; one of the grand and glorious cities of the world ; a city full-charged with the pathos and tragedy of the past ; no mean city, but a city one could live and die for ; a city set on a hill which cannot be hid ; a city which comes whispering her enchantment to all those who love her, a city—

"Piled deep and massy, close and high,
Mine own romantic town !"

THE PLACE OF ARCHITECTURE IN CITY DEVELOPMENT

BY H. V. LANCHESTER [F.R.A.S.C.], PRESIDENT OF THE TOWN PLANNING INSTITUTE

In considering the modern city we must think first of city development and then of architecture, architecture basing itself on purpose and being clearly subject to the form development takes. Thus, in order to reach the architectural aspect we must have a clear picture in our minds of the general type of organisation we desire. The first need is that our towns should be orderly and efficient, meeting all requirements of economic production and sane living. These are basic requirements which will in the main dictate the type of design.

Before attempting to formulate these it would be serviceable to glance back at the problems of past ages and see how far these were solved in their own times, and note more particularly the failures that resulted from the difficulty of adapting established organisations to changed conditions, such difficulties being the main factor in our problems to-day.

Primitive building was circular in form, and we still meet with hut villages that represent the more general type of communal group in primitive times. Not only in this case but in others, such as cave and lake dwellings, there yet remain examples of the earlier experiments of man in grouped housing. These possess an

interest as showing the various expedients to which man had recourse in his battle with nature.

The circular hut is the most economical form for a single-chamber dwelling. The cave was an obvious expedient where it was easier to remove material than to build, while the lake dwelling type had marked advantages in affording protection from wild beasts, and in the case of river banks, or tidal waters, in giving an easy way for disposing of refuse.

These types still persist among primitive peoples, but they are no longer possible when the organisation becomes more complex. The circular form is unsuitable for a building of more than one room, and the cave for more than two or three, apart from the rarity of a site suited to a rock-cut city in any appropriate location ; while the aquatic village grown to any size is no longer convenient or sanitary.

Rectangular building is the inevitable solution of communal needs, and as a consequence of this all the earlier forms of planned towns are on rectangular lines. Egyptian, Greek, Roman and mediæval examples all illustrate this, and it is only where growth has been adventitious that we fail to find a large element of

THE PLACE OF ARCHITECTURE IN CITY DEVELOPMENT

rectangularity. It is because the latter was the case in so large a proportion of mediæval towns that they are typically irregular rather than regular, the main factors militating against the rectangle being the existing radial routes and irregularities of surface.

A passing reference should not be omitted to one of the more interesting factors in the development of the town plan—namely, the constantly increasing importance of the wheel. Early cities and early roads had but little wheeled traffic, and we find correspondingly little regard for gradients. During the last three centuries increasing consideration has been given to this factor, up to the culminating point of the railways, where gradient is of the first importance.

We may regard the primitive forms of city development as of two types, the organised and the opportunist, the plan of the latter dictated by site and by routes pre-selected for traffic and convenience. It would take too much time to go into the interesting study of the numerous conditions that have dictated the locations for towns and the influence of the defensive walls and the more elaborate fortifications of later times, which have been dealt with in such an illuminating way by Professor Geddes and others, so with the one remark that these have profoundly influenced the form of many of our cities we will pass on to the industrial age, to which we are indebted for the main obstacles to sound development at the present day, though the untrammelled railway activities of the latter part of this period have added serious complications. We can learn from the past how unwise it is to abandon features that at the moment may have seemed superfluous, but which change has restored to importance either for their original or some other purpose. Thus the neglect of our main roads on the advent of the railway has seriously hampered us in recent times. Again, many of our towns are unduly congested at the centre owing to the building up of old market places where the proprietors of temporary stalls managed to substitute permanent buildings. Somewhat similar procedure resulted in the loss of the Thames-side roadways in the city of London ; the great ring road laid out in the eighteenth century from the City to Paddington, 150 feet wide between frontages, has suffered from extensive encroachments, and now we find the London squares endangered, two of these being on offer as building sites at the present moment.

Our difficulties in the reformation of the city are not solely, or even primarily, the mass of undesirable material we have to deal with, but the inheritance of habit and mentality that is imposed upon us. Man changes his attitude of mind only gradually, and we are still in large measure thinking in terms belonging to methods the results of which we simultaneously deplore. Our industrialists and economists, while admitting the need of remedial measures, are still

unable to accept those of a more drastically reconstructive character. Despite a general acceptance of the proverb, "Prevention is better than cure," any solution that hints at control of industrial liberty is still likely to meet with strenuous opposition, and the town planner is not as yet at the end of his battle for a more logical organisation in the future development of the city.

As without such organisation the art of architecture suffers from every possible handicap, I make no apology for putting this aspect in the forefront of my argument, and for claiming that it is the one most urgently in need of our attention. When we look around we shall find that there is no need to be discouraged and that we may not be so far from our goal after all.

Under the name of Zoning, not perhaps a very explicit one, although it has been generally adopted, we shall find that the control we seek is already, in most of its features, in operation in one important centre or another. In confirmation of this statement let me give you a few extracts from Mr. Pepler's paper at the Town Planning Institute last year.

"The first zone plan appears to have been that of Altona, in 1884, by Franz Adickes, the burgomaster who afterwards gave his name to the celebrated Lex Adickes of Frankfort. Many other German towns followed this example. These zone plans form part of the Town Plan and govern heights, character, and density, the highest and most closely packed buildings being allowed in the centre, and more spacious planning being insisted upon in the outskirts. Both in Germany and America the zoning regulations apply to the whole town and are not subject to compensation to owners.

"In America, the city of Los Angeles appears to have established the first zoning ordinance in that country in 1909. Since that date more than thirty other cities have followed suit, and some forty more have schemes in course of preparation. The first zone ordinance of a comprehensive type was adopted in New York City, July 25th, 1916, and in 1920 the following report was made of its working : 'It may be said that the New York ordinance has city-wide approval. During practically three and one-half years of adoption there has been surprisingly little attempt to change it, while no actually significant changes have been made in the ordinance itself. It has been approved by practically all the important organised groups of the city, which is sufficient indication of its value and importance.'

"In England the first attempt at zoning was made in the Town Planning Act of 1909. It is worth while to quote the opening Town Planning Section (54(1)) : 'A Town Planning Scheme may be made in accordance with the provisions of this Part of this Act as respects any land which is in course of development or appears likely to be used for building purposes, with the general object of securing proper sanitary conditions, amenity,

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

and convenience in connection with the laying out and use of the land, and of any neighbouring lands.'

" An important distinction will be noticed between these powers and those exercised in America and Germany—namely, that our Act does not seem to cover the inclusion of whole towns in schemes but only the developing parts.

" The Canadian Town Planning Acts are largely based on ours, but draw no distinction between built-upon and unbuilt-upon lands, so that in the Canadian States which have adopted Town Planning whole towns can be included in schemes.

" The Birmingham Corporation began by prohibiting any dangerous, noxious or offensive trade to be carried on except on lands already so used or appropriated for the purpose ; otherwise no specific factory area was set apart, but no factory or building other than a dwelling-house could be built anywhere in the town-planned area without the consent of the Corporation. In their last scheme, for the South Birmingham area, factories are allowed on certain areas by consent of the Corporation, without any advertisement being necessary ; in other more residential areas, advertisement gives the residents the opportunity to appeal.

" The Manchester Corporation, in their scheme for the southern area, propose to set aside one portion of the area where any type of factory can be erected without the consent of the Corporation being required, except as to manner of erection, height, elevation and character of building. The Corporation can permit factories in other parts of the area, subject to certain restrictions."

The New York Zoning Ordinance is stated to have prevented vast depreciation in numerous districts, while it has effected numerous savings in values amounting to many millions of dollars ; and the St. Louis Ordinance is also said to have resulted in a very noticeable stabilisation of values in several residential areas which, previous to the adoption of the zone ordinance, were declining or showing tendencies toward depreciation.

It seems to me only reasonable to claim that the preparation of schemes of zoning is the step now of the most importance in giving city development the direction that will make it the appropriate nursery for good architecture. We must all agree that one of the first conditions demanded is that buildings shall have appropriate sites and protection from an environment destructive to their effect. Though we may be able to admire a fine building, like a fine picture, wherever we find it, that is not architecture as it appeals to us from the civic point of view ; we want the city to be fine, not to have to rake in the dustbin for some precious gem, and the only way to secure dignity and beauty throughout is to prepare the road for it by providing a general scheme which ensures consistency and order in all parts.

The architect will never underrate the value of tradition, which always affects the appreciation of beauty, but it is important to distinguish between those traditions which are helpful and the others that are the reverse. This can only be done by a most intimate study of city life and of the city dweller, a study that embraces not only the economic development, such as how the place earns its living and supplies its needs, but also its social and cultural ideals—what its inhabitants demand to get with the margin beyond their working time and living wage. Not until we have grasped the demands which come under these heads are we entitled to claim the right to indicate the material form in which the city shall express itself. Development is not merely extension, it qualifies that which already exists, and it is only by comprehending the conditions and tendencies of a community that we can ensure the soundness of proposals for revision and reconstruction, so that these shall retain all that is of value and only sweep away what has become detrimental to the social organism.

In a well organised town nothing need offend ; some parts would be more interesting than others, but as there is never anything distasteful where structure or mechanism perfectly subserves its object, a town in which everything complied with such a law would be basically sound. If over and above this its non-material demands were met expressively it might be considered as perfect. You may think I have carried this attempt at simplification too far, as it is difficult to picture any city reduced to these terms. In all those with which we are familiar there are so many complexities to be reconciled, and so many demands for compromise, that it will not be amiss to cast our eyes over some of the matters that require attention if future development is to lead us towards the city of architectural beauty.

Architecture, considering that its expression takes so abstract a form, has been fortunate in finding even a limited number of enthusiastic votaries outside its exponents. The appeal for it can never be made directly to the community as a whole as a " fine art," for in the general view it is but rarely divorced from its basis of utility, and thus architecture can only be comprehended through the familiar aspects of building

Architecture has long ceased to be in itself a popular art, by no means entirely the fault of the public ; indeed, considering the advantages it has in the fact that buildings are always to be seen and cannot be evaded, it would look as if the architect ought to have been more easily able to retain popular esteem than any other artist, and he would have done so had he not been tempted to regard his work as on a plane above the life of the normal man, instead of something solidly based on this and developing out of it.

Design is an imaginative effort governed by a number

THE PLACE OF ARCHITECTURE IN CITY DEVELOPMENT

of factors such as site, orientation, hygiene, economy, durability and proportion, the last including the relative importance of the components of a building as the basis of the composition; and though the traditions of the past define what is regarded as "good taste" and may not be ignored, we cannot accept their domination of design to an extent almost excluding the other factors. Owing to this attitude architecture became academic and in disrepute with men of direct and logical mind, who preferred any kind of building provided it met their requirements. This would have been healthy discipline had it been thorough, but there remained a sort of vague notion that a building ought to be "architected," and from this developed the "practical designer" who, without any sense of form and expression, slavered the buildings over with sham architecture and produced so much of the work that shocks us in our towns to-day. He was naturally vulnerable to the vagaries of fashion, and if we wander through our streets and suburbs we see these represented in various forms, all distorted and abounding in affectations.

With this lesson of past failures before us it will readily be accepted as of the first importance that the general character of the various forms of city development should be determined before attempting to visualise them architecturally. When speaking of this general character it must not be regarded as going beyond the allocations and organisations essential to economic requirements and the well-being of the citizens, for on passing this point the architectural aspect comes in as giving form to the planning and structures designed to meet these needs. Thus the provision of roads suitable in alignment and capacity to the buildings they serve is just as much an architectural question as the internal planning of a building; architects have been too apt to look upon their craft as limited to building works only, whereas it extends to all questions that affect the appearance of groups of buildings and their relation to the surroundings, so that the architect should be prepared to deal with every problem that arises in civic development, and even if some of these are not submitted to him for final decision he should at any rate be in a position to exercise a critical influence from his point of view. The form these problems may take will be varied almost to infinity, so that only one or two illustrative examples can be referred to at the moment. In dealing with development the first question that arises will be the allocation of areas for manufacturing, residential and other purposes, as already referred to in the notes on Zoning, but closely linked up with this are the arrangements for transport and transit, in regard to which the architect has hitherto had very little to say. The result of this has been that these have generally been conceived in forms quite unnecessarily destructive to

amenity and beauty. The earlier railway stations were designed by architects, but as this practice was soon abandoned we find as a consequence that in few places can we do other than deplore the forms that railway developments have taken. At the present moment there is a recognition of this failure, and a distinct demand that projected extensions shall be less destructive to the general amenity, so we may take courage and endeavour to prove that we can in the future give valuable service in this direction.

As regards housing also the architect has now his opportunity, and if he can free his mind from those traditions that are out of harmony with present demands he has a wide field before him. The problem is admittedly difficult, as we have to abandon so much that has given importance and dignity to our cities in the past and evolve for ourselves a new type of communal group making a quite different kind of appeal.

To those steeped in tradition the new housing schemes appear trivial and ineffective, and in several cases we see the absurdity of a road pattern laid out on the lines of Le Notre to provide for the needs of two-storey cottages. Formerly the city consisted of masses of building, supplemented by trees and gardens. Now building masses will only dominate in the industrial areas and in a few centres where the public buildings will be grouped; elsewhere trees will definitely dominate buildings, and our old traditions of mass and dignity can only be maintained in public parks and gardens which, with their connecting avenues, ought to form the framework of the city extension.

It appears very unlikely that any turn of the wheel will bring us back to such ideals of living as might enable us to give material shape to such imaginings as achieved the new town of Edinburgh, the city of Bath, and the like, but there are still demands for reconstruction that afford the opportunity of treating buildings in dominating masses, even where such masses are mainly regarded as a field for the activities of the advertiser. When this is the case it is no use our lifting our hands in horror; by so doing we only put ourselves out of court. The public demand advertisement and it is up to us to show them that our towns can be as beautiful with it as without it. There is no reason why advertisement in every form should not be used as a basis for beauty in design, and it can make its appeal on this basis as soon as we can prove that the present attempts in colour and light to drown each previous effort can only result in a confusion that defeats its own end. This is perhaps the most extreme example of departure from tradition among modern developments, and its acceptance and employment for the purposes of our art would be a crucial test of our adaptability and our capacity to cope with all the changing conditions that demand our intelligent appreciation.

Discussion on the Papers

Professor T.H.HUGHES [A.], Director of Architectural Studies at the Glasgow School of Architecture: It is not without some hesitation that I make some comments on Mr. Lanchester's paper, for he is our greatest authority on the subject, and he has given us most concisely the basic elements of town planning. As to the question of zoning: personally I do not consider that question without also considering the question of satellite zones. We have got to think of town planning, not in terms of ten years or generations, but in terms of centuries. We may devise an admirable scheme with the town split up in several zones—zones as residential areas, industrial areas, civic centres, and so on. That may be all very well for ten or twenty years, but in a hundred years or so we may find the perimeters of the circles will overlap, and the whole affair which we carefully organised and thought out may be spoilt. It seems to me it is absolutely necessary that we should have some limit to the extent of our cities. We cannot go on as we are doing, growing and growing. I suggest that we consider zoning together with the question of restricting the areas to be covered by the city as was suggested years ago by Ebenezer Howard, by planning satellite zones round about the city. Mr. Lanchester when he spoke of Edinburgh and Bath said he thought these were rather enlightened times. Personally I do not believe our own country and age are worse than any other. James Craig's work in Edinburgh was really a speculation on the part of the Corporation. They wanted to develop the land on the north side and so they ultimately got this plan of Craig's. A little later Craig proposed another fine scheme for the development of the south side, but nothing came of that. Then in 1766 John Gwynne wrote his famous book on Land Improvement. He said City Fathers are absolutely hopeless in undertaking the arrangement of the planning of land, and when they do plan new streets they do not do so properly. He said just the same sort of thing as we are saying at the present time. If we look at France at the beginning of the eighteenth century, the towns which were really planned as complete units were planned not because the people desired beautiful towns to live in, but purely for military convenience. Other well-known examples like parts of Paris are more or less isolated places built by kings or princes for their own glorification. Take Bath. It was not built because the people wanted a beautiful city to live in; it was the whim of one magnate. We ought to have a desire to do everything we can for our cities in these times. What I would like to ask Mr. Lanchester is if he has any suggestions as to what to do next—how to set the ball rolling. I think we want civic associations in every town having a population of 50,000 or more—really active civic associations determined to push the thing through, and on these associations as many architects as possible. Before Chicago was carried out its business men found it necessary to advertise their scheme thoroughly. They published a little book on it, they had lectures in the schools, and illustrated it in the cinematograph theatres. We must make the people at large interested, and realise the importance of living in an efficiently planned and built city. Certainly I suggest we do something in the way of architectural education. More stress might be laid on the importance of designing buildings not to be only

nice in themselves, but to form a proper part of the big schemes for planning a town.

Mr. EDWARD P. WARREN [F.], President of the Berks, Bucks and Oxon Association of Architects: I have listened with the greatest possible interest to the very admirable contribution made by the last speaker as also to Mr. Lanchester's learned and interesting paper on the City of Edinburgh. It seems to me that in town planning there is such a thing as overdoing it. In the beautiful towns of all countries a very great deal of the charm may be owing to the natural history of its formation. Here in Edinburgh you had the good fortune to have a site for the town—what the French call extremely "accidenté." You have a site which as a whole nobody could have planned. If you take the High Street of Oxford, the curve of that street is imitable. You could not plan a street like that. It has a subtle curve which could not be struck by compasses. That was the line which the cattle used to take on the land between the marshes and the rivers, and they have made a beautiful curve which has been maintained, first in mortar buildings and finally in stone. Oxford being a seat of learning, people have built colleges of great beauty there. Mr. Lanchester said good buildings should have good sites. Certainly, but you can reverse the maxim and say that good sites deserve good buildings. The necessity is for all sites, if possible, to be appropriate to the particular locality in which the site is being planned. There are a few old towns in which the town planning and original intention still remain intact. These are small towns. In France, there is the little town of Richelieu deliberately planned by the architect of the great Cardinal to provide a small town of dwellings for the gentlefolk of his court and their dependants. This little town is entered by a stately gate, with small houses and mansions all along a central street, and symmetrical cross-roads running off the street. If you are going to plan a new town to grow into a great city, you must leave a great deal for future developments. In these days civic, commercial and personal needs are always changing. The change is rapid, therefore I think in planning a town you must not be exactly too definite. Mr. Lanchester in describing the needs of the modern planned town said there would be the industrial quarter with its big commercial buildings, the public buildings, and inevitably in the modern town with modern economic conditions there would also be very large blocks of apartment dwellings, which would have much the effect of public buildings. It is precisely such dwellings that must be foreseen and thought of. There are buildings which of course define their character. The church, for example, has a traditional character. There are other buildings whose character is more or less preordained, but there are many in which we have not arrived at a traditional form.

Professor S.D.ADSHEAD [F.], Professor of Town Planning, University of London: May I add a word of appreciation to the readers of these two papers? When I descended upon Edinburgh last Monday I admitted to myself that it still kept up all its old reputation of being by far the finest city in Great Britain. The impression I had was that the scale of Edinburgh was greater than the scale of London. In scale it is a magnificent city—with the greatness of

DISCUSSION

its streets and the splendour of its openings. With regard to the remarks made by the first speaker on the origin of new Edinburgh, I think he omitted to give a little credit to the influence of France. I do not think new Edinburgh was quite so original as we were led to suppose in that paper. Probably James Craig and others were well acquainted with all that was passing in Paris at the time. So when we have the competition won by James Craig, we have really the tradition of Paris brought over to Edinburgh. Walking down George Street one cannot help thinking that the scale and the general disposition of the buildings and open spaces owe more to the influence of Paris than anything we have in this country. May I say one word in reference to those matters eminently affecting us at the present moment? We are in the throes of great road schemes and widenings. There is a tendency to talk too much about widening streets. I think it is a mistake to attempt to widen all our streets. It is for architects to lead the public in the policy of preventing motor traffic dashing rapidly through all our old towns. If our architects were to adopt the principle of having great roads round towns, and prevent the pulling down of narrow and historic streets and buildings, I think that would be wise. Princes Street itself is in some danger. This materialistic engineering way of sacrificing everything for transit is only a phase in modern evolution, and we shall regret it if we give way to it too much. We are also in the throes of large town development schemes and the administration of town planning acts which are all proceeding with regulations and other matters of administration, rapidly leading us into the old by-law methods. I want to warn architects that the more settled the administration of town planning becomes through an act, the less lasting and the less artistic will it be. Through all the rigmarole of by-laws architects must lead the imagination of the people in seeing how these acts are to operate. Unless they do so we will have our towns as hard, as crude, and as regular as the old by-law street of half a century ago.

Major H. C. CORLETTÉ, O.B.E. [F.], representing Australia, said : I should like to add how very much I have appreciated the two papers read to us. Mr. Marwick gave us a most interesting and illuminating address on Edinburgh, and the second paper was full of admirable suggestions. Mr. Warren asked in the course of his remarks : What must we do to-day? I think that question is really the crux of the whole situation. Professor Adshead has said something which makes us think what shall we do. What we have to do so far as I can see is to impress public authorities with the importance, the relative importance perhaps, of what architects may be able to say in connection with city development. It is not merely a question of city development. It seems to me it affects political questions; and the larger the outlook we have with regard to all these affairs, the more we are likely to be able to help those who have the final word which will decide how the future is to be developed in relation to the growth of towns. Does it not mean that what we as architects want to-day is a much greater opportunity to say what we think about the needs of the community as a whole, and that Conferences such as this one at Edinburgh ought to be held more frequently? We ought to take every advantage of the chances they afford to get members of public bodies to attend so

that they will hear what we have to say on some of those subjects that affect affairs generally. They are not sufficiently interested in architectural questions, and I am not sure that we can blame them. You, Sir, have said to-day that there is a representative of one of the Overseas Dominions present. I felt it was incumbent upon me to come here because the Federal Council of Architectural Societies in Australia has asked me to represent them at such Conferences. If we want to make our opinion felt, we have got to have these Conferences. We have got to take a much greater part ourselves in public work, and, if I may say so, I think, if we can only make up our minds that we are going to have one single strong and united body, everything that we may say on these subjects will be listened to, and some should be acted upon.

Professor PATRICK ABERCROMBIE [A.], Professor of Town Planning, Liverpool University : I want just to say in reference to Mr. Marwick's paper what an astonishing performance that appeared to me to be. To visualise, to make vivid before one's eyes the whole of the history of a city like Edinburgh in one short paper was an amazing achievement. Professor Adshead has referred to the influence of Paris in relation to James Craig. The same idea struck me, but quite differently, while the paper was being read. There is a very long-standing connection between France and Scotland, and I do not think any other nation in Europe, with the exception of the Scots and the French, could have produced a paper of exactly that quality. There were precision, exactitude, statistics, and while the paper was even formal in parts, it was at the same time human; it was warm, it was emotional, it was even romantic. We never get just those qualities with their lofty elements in England, but in France you will hear a speech delivered in much the same way. It was a remarkable performance. You will, I am sure, pardon me for referring to what struck me as one omission. It is an omission that seems to be frequently made in meeting with Edinburgh people and in talking about Edinburgh. You have in Edinburgh, it is true, an amazing number of magnificent features in your city, but there is one feature you possess which, I think, out-tops them all, and it is a feature that Mr. Marwick did not actually allude to. You have your castle, you have your ancient High Street—one of the most magnificent examples of picturesque architecture in Europe—and you have your Princes Street. One has to ransack Europe to find towns with similar features. That is a marvellous compliment to Edinburgh. But Edinburgh contains one feature that you cannot find in any other town that I know of, and it always strikes me anew with fresh wonder and with fresh beauty when I visit the city—Arthur's Seat. I do not think any other town has anything comparable to that so close to the city. It is very fortunate that it has been allowed to remain in its natural state. I am very glad that your monuments have been put on the Calton Hill and on the Castle. Fortunately you have left Arthur's Seat untouched, a piece of magnificent mountain scenery. It is outside the historic limits of your city, yet on the very borders. It does seem remarkable that if the two papers we have heard to-day were really the result of chance, they were most extraordinarily associated. You have the particular first, the actual town with its history and architecture, and then you have the general dealt with by Mr. Lanchester. It was a most

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

fortunate coincidence, if it were nothing more than a coincidence. Mr. Lanchester took us back to the cave-dwellers, and Mr. Marwick did not go back so far. Yet both papers were exactly complementary, and I think they have given us the right basis for the consideration of this question of the relation of architecture to the future development of our cities.

Mr. HERBERT A. WELCH [A.] : I should like to add my tribute to Mr. Marwick for the very delightful paper which he has given us, and to which we have listened with such intense interest. I congratulate Edinburgh on possessing him as one of her citizens. Passing from that paper to Mr. Lanchester's paper, and to the remarks which have been made regarding it, I cannot claim so deep and intense a conception of Town Planning as some of those who have spoken, but I am a little concerned that one aspect has not been touched upon this morning. I was a little concerned not only with Professor Adshead's remarks, but also with the warm reception it received from those present, when he suggested that the future development of towns must be considered from the point of view of taking wheeled traffic outside rather than of bringing it within. It strikes me that is a most excellent theory, but how can that possibly be brought into effect in practice ? The essential communication is in the heart of a city. You cannot stop people from getting within your town, otherwise your communication is bad. Taking them round is not a cure. That evades a satisfactory solution of a very difficult problem. The statement does not offer a solution, and a solution must be along other lines. Further, in the towns themselves, there is need for very much more serious and intense consideration of road problems, especially in those which have trams or other vehicles which must take a certain definite line along streets. Those who live in big towns go in peril of their lives day after day in getting off a tram or a 'bus when they find fast-moving vehicles swishing past at thirty or forty miles an hour. What are we to do with the problem of fast and slow-moving traffic proceeding along the same lines ? That is one of the greatest problems we have to solve, and no one has touched upon it. I believe it is one of the most vital points affecting large existing towns, and, after all, it is there that the greatest difficulties have to be faced. They are the most difficult of solution as they are circumscribed by so many features and must, more or less, maintain their present form.

Mr. LANCHESTER (in reply) : With regard to those speakers like Professor Adshead and Mr. Welch who have taken the range of my paper beyond its original idea, I am grateful to them for expanding the subject, but I felt I had got enough on my hands without carrying it any further. There was a point raised by the first speaker in regard

to civic associations. I entirely agree with him, that every important place, and perhaps even less important places, should have a civic association. I do want to emphasise what I intended to emphasise in my paper. The first need of every city when you get a civic association is to understand. You must have a basis for your imagination, and by understanding exactly what the trend of the city is going to be you will find the basis on which to build your conceptions. I think Mr. Warren rather misunderstood me when he said there was one point which he deprecated—any provision beforehand, because a city must grow to some extent haphazard. Well, I think if you study your city you are better prepared for change in ideal than if you have not. That is the only point. Do not rest supine and say things are bound to change so much that we had better not do too much. I do not say too much, but understand as much as possible, and then you will be quicker to realise if the circumstances are changing and the city you have got in your mind is to be something rather different and more extended, more scattered, more of the form of the group city. What I feel is that the first need is to know as much as possible in order to see where you are likely to be led.

Mr. ARTHUR KEEN [F.] , Honorary Secretary R.I.B.A.: We owe a vote of thanks to the writers of those two admirable papers that we have just listened to, and I wish to move that our thanks be accorded to them. The question has been asked what are we to do, what steps are we to take ? Well, I think that what we, as architects, ought to do is to arouse the interest of the public in this matter of Town Planning, which has gone out of the hands of the aristocracy into those of the democracy, and it rests with us to educate ourselves and this democracy, to make the people interested themselves in Town Planning, to realise how important it is and how much depends upon it. If we can, we should make them understand on what the beauty of cities rests. I think you will find that the general public are very ready to be instructed in these matters, and any work that can be done in this way is extremely valuable. A few weeks ago, in connection with the Wren celebrations in London, I had occasion to show a number of people through churches that were built by Sir Christopher Wren, and I was astonished to observe how interested they were. They were eager to come again, and it seems to me it is always like that. If any lecture is given to the general public on architectural matters, there are always many interested, and I believe they will be far more interested in Town Planning if the essential points can be delivered with special reference to the place in which the lecture is being given. I have very great pleasure in proposing a vote of thanks for the most interesting papers we have listened to.

THE CONFERENCE BANQUET

The banquet was held on Friday night, 15 June, in the Freemasons' Hall, George Street. Mr. Paul Waterhouse, President of the Royal Institute of British Architects, presided over a distinguished company of ladies and gentlemen numbering over 200. Among those present were :

Lord Alness (Lord Justice Clerk), Lord Sands, Bailie Watson Sir James Balfour Paul, Sir Robert Philip (President of the Royal College of Physicians, Edinburgh), Mr. T. P. Marwick (President of the Incorporation of Architects in Scotland), the Rev. Professor Milligan (Moderator of the Church of Scotland), the Rev. Dr. Wallace Williamson (Dean of the Thistle), Mr. J. Alfred Gotch, F.S.A. (President-Elect of the Institute), Sir

THE CONFERENCE BANQUET

Frederick C. Gardiner, Lord Dean of Guild Forrest, Dr. George Macdonald (Secretary, Scottish Education Department), Mr. James L. Caw (Director of the National Galleries of Scotland), Mr. Andrew Grierson, S.S.C. (Town Clerk of Edinburgh), Mr. E. J. Partridge (President of the Society of Architects), Mr. Arthur Keen (Hon. Secretary, Royal Institute of British Architects), Principal Laurie (Heriot-Watt College), Sir Banister and Lady Fletcher, Sir Robert and Lady Lorimer, Mr. W. T. Jones (President of the Northern Architectural Association), Mr. E. P. Warren (President of the Berks, Bucks and Oxon Architectural Association), Mr. Francis Jones (President of the Manchester Society of Architects), Mr. H. V. Lanchester (President of the Town Planning Institute), Mr. Percy Thomas (President of the South Wales Institute of Architects), Mr. James Lochhead (President, Glasgow Institute of Architects), Mr. T. Aikman Swan (President of the Edinburgh Architectural Association), Mr. C. J. Soutar (President, Dundee Institute of Architects), Professor Baldwin Brown, Hon. A.R.I.B.A., Mr. Ian MacAlister (Secretary R.I.B.A.), Mr. W. Glassford Walker (Secretary, Incorporation of Architects in Scotland), Mr. Herbert A. Welch, Mr. William Woodward and Mr. A. Lorne Campbell.

After the loyal toasts had been pledged "Our Guests" was proposed by Mr. J. Alfred Gotch.

Mr. J. A. GOTCH (*President-Elect*) : It is with some diffidence that I rise to propose the toast of "Our Guests." For here are we in Edinburgh, a city full of lofty memories, teeming with romance, steeped in traditions of high literature, enough to render mute any mortal who may have ventured to intrude into the domain of letters.

And here are we architects, brief sojourners in this enchanted city, privileged to greet as guests many of those who dwell within its precincts, and help to guide its destinies.

But I can assure you, honoured guests, that the awe you inspire does not diminish the welcome we extend.

Indeed, the more we architects mix on terms of friendship with leaders of thought, with captains of industry, and with the rulers of local affairs—the more we can do this, and lift the veil which shrouds the simple mysteries of our craft, the better it is for the Art we pursue, and for the great public whom that art must, in the very nature of things, affect most deeply.

The manifestations of that art are visible on every side, and yet, I fear, architecture is a sealed book to the public at large. Its intricacies, its technical terms, are apt to baffle, if not to terrify all but those devoted to its study. Yet, when the seals are broken, when the intricacies are unravelled, when the meaning behind the technical terms is expressed in simple language, the study of architecture, with all that it implies, becomes one of singular fascination.

It reveals the varying attitudes of mind in which man has considered those unseen forces which lie beyond his physical horizon, and which have ever constrained him to acts of worship. It records in enduring forms the changes in his outlook on life and in the measures he has adopted to meet the needs of his time in relation to safety and comfort. In short, the whole development of mankind in matters spiritual and physical is reflected in architecture.

This fascination we architects long to produce, or if we fall short of fascination, our earnest hope is that at least an intelligent interest may permeate the public, to its own lasting benefit, to the benefit of our art, and—need we hesitate to say so?—of ourselves.

The outside world knows but little of what goes to the training of an architect : the long years of study—study of the past, study of the present. The acquisition of knowledge most diverse in kind : knowledge of construction, both simple and complicated ; of the habits and wants of mankind, so that buildings may be planned to satisfy them ; of the means whereby these buildings may be made agreeable to the eye ; of how to accomplish this without undue expense.

The study of the past not only renders us familiar with beautiful buildings, but tells us how the men of old solved their problems, and hints to us how we may solve our own. The study of the present enables us to bring to our solutions methods unknown to our fathers. Above all, this arduous training helps us in our most difficult task, that of presenting the result in an attractive form.

Here Imagination comes to our aid. The architect may not unreasonably aspire to range himself with "the lunatic, the lover and the poet," who "are of imagination all compact." But there is this difference, that whereas his three companions can give unfettered play to their commanding quality, the architect finds himself bound by unalterable facts. Of imagination he must indeed be compact, but not quite all compact, for he cannot ignore the practical aspects of his problems, aspects which are as naught to the lunatic, the lover and the poet.

The man in the street will doubtless concede that what I have indicated may be true in relation to some great and important building, but, believe me, the same qualities which are necessary to the production of large work are necessary to the little.

If only the great public could realise this, how much more beautiful would our cities be, how much more charming the countryside ! So far as the health of the community is connected with building, protection is afforded by innumerable by-laws ; but beyond the flesh there hovers the spirit ; and the spirit should no more be wounded by atrocious designs than should the flesh by insanitary surroundings.

Thus, we welcome our guests not only for the pleasure their presence affords us, but also because we desire to establish a bond of mutual sympathy between them, as representing the public, and ourselves as architects, whose feelings are sometimes harrowed by the fear that our true function is hardly understood.

It is a wide circle that is included in this toast, for our guests reflect many aspects of life : the City and the Church, Art and Science, Law and Learning, Letters and Commerce, and that ever increasing and I hope benign influence in public affairs that is wielded by the Ladies.

I give the toast of "Our Guests," and beg to couple with it the names of Bailie Watson (in the absence of the Lord Provost of Edinburgh), Lady Fletcher, and the Rt. Rev. Wallace Williamson.

BAILIE WATSON responded on behalf of the City of Edinburgh, in the unavoidable absence of Lord Provost Hutchison.

LADY FLETCHER, who also responded, said she could not but be conscious that they were not only the guests of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the Royal Institute of British Architects, but also the guests of Bonnie Scotland. She believed after a long experience of Conferences that they were very good things, should she say when they were not Government Conferences? She thought most conferences helped people to smooth out their difficulties and to understand one another's point of view. She understood that the Institute was not entirely free from differences of opinion. She thought a Conference of that kind would help towards a solution of those difficulties. There was the word registration. She knew something about registration. The difficulties of registration had split many societies, including the nurses, and they had all come to a solution in the end, and she thought that doubtless they would do the same. On the more personal aspect of the matter, she thought from the fact that she had been asked to take part in replying to this toast of "Our Guests," it was clear that their Council had moved with the moving times. It had wisely decided to recognise the soul in the eternal feminine and she was greatly honoured and pleased that she was asked to reply for the ladies. The Council of the R.I.B.A. had recognised that the old order sometimes changed and had decided to give women their chance and to recognise their ability where it existed. She did not think they need be alarmed about the competition of women. At the present time she did not think there were more women architects recognised than there were women Members of Parliament, and men apparently did not consider them to be great competitors there. In fact, the only thing she could see was their interest in observing how the women M.P.'s dressed. She was very glad to have voiced the thanks of the women and to respond to that toast of mixed foursomes.

The Rev. Dr. Wallace Williamson also responded.

LORD SANDS, proposing the toast of "The Royal Institute of British Architects," said: I am aware that the majority of those present are Members of that Institute, but still I think that they can all be invited to drink to its health because, though it might be inappropriate that one should, on a public occasion, honour one's own personal health, one is always justified in honouring the health of the corporate soul of the community to which one belongs. The Institute has honoured Edinburgh by its visit. We greet their visit with satisfaction, and we congratulate them upon their choice of a city, because, altogether apart from historical and romantic associations, I think it would be difficult to find a city more worthy of the visit of the Institute of British Architects than Edinburgh, whether they were in search of examples or of warnings. I cannot suppose that I have been honoured by an invitation to propose this toast because I have been a benefactor of architects. I have always contrived with very minor exceptions to keep my own hands out of the mortar pot, but I have had professionally and judicially a good deal to do with architects. I cannot say that the questions which I have had to canvass are of a very distinctively aesthetic character. Such questions as I have been familiar with are, to take an illustration, "Suppose an architect is invited to prepare plans and specifications for a building and that building is not proceeded with, is the architect entitled to commission upon the prospective cost; and, if so, at what rate ought that commission to be allowed?" In the course of my professional experience with architects I have been struck by the circumstance that they appeared

to be singularly forgetful. I am not speaking of English architects, because my experience is limited almost exclusively to Scottish architects, but Scottish architects, when they prepare plans and specifications and submit estimates of costs, always forget the architect's fee! I call it forgetfulness, but perhaps it is modesty. All these are sordid matters, however, and I would rather address myself for a moment to a more idealistic aspect of the architects' profession. Architects are all striving after two ideals—utility and beauty. Now, it is an interesting question whether these two are coincident. It is quite easy to make them coincident if you make beauty synonymous with utility. That is an easy thing, but it involves a certain abuse of language. If you address yourself to the consideration of the two words utility and beauty, and attach to each their ordinary meaning, I am afraid you cannot give an affirmative answer to the question whether utility is always coincident with beauty, but, mark you, one must not go to the opposite extreme and suppose or imagine that there is any antagonism. If you see a singularly ugly house there is no presumption from the ugly exterior that internally it is a most convenient and commodious house. On the contrary, there is a certain presumption that it is not so, because the architect who designed such an ugly exterior is not very likely to have designed a comfortable and commodious interior. But whilst that is so, and whilst one cannot affirm that utility and beauty necessarily go together, I think that one must recognise that the necessity to adapt a building for certain purposes may furnish inspiration in the creation of the beautiful. Take our English cathedrals. I do not know if it will be universally admitted, but it is certainly my own opinion that these are the most beautiful buildings in England, if not the most beautiful buildings in the world. Now these buildings were gradually evolved. The original idea when churches, from which cathedrals arose, were built, was not the designing of a beautiful building but the designing of a building suitable for certain forms of worship, and for certain rites and ordinances, and to that came to be superadded the idea of the necessity of conforming with certain rules of symbolism, and so the cathedral arose. Now I beg you to assume for a moment that we had no churches and no cathedrals, and that you invited all the most distinguished architects in the country to furnish designs for a beautiful building without regard to any purpose to which that building might be put. I have no doubt that you would get many beautiful plans and designs, but on the supposition which I put, that we knew nothing of churches and cathedrals, I venture to think that none of these buildings would have the remotest resemblance to one of our cathedrals, and I venture to add that not one of these buildings, great as is my respect for the ability of the architects of the present day, could compare with one of our ancient cathedrals. In the evolution of the cathedral the necessity of designing buildings adapted for certain purposes and to conform with certain rules of symbolism has been an aid, and not a hindrance, to the inspiration of the architect. It is the same in poetry. The metre and the rhyme one might regard as a hindrance to the free stirring of the imagination, but it has not been so far. On the contrary, they have been found to be a source of inspiration and of imaginative development and expression, and so it is in architecture. The necessity for con-

THE CONFERENCE BANQUET

forming with certain purposes, certain ideals, certain symbolism, has been an aid and not a hindrance to the development of architecture. These, however, are high and difficult subjects, perhaps hardly appropriate to an after-dinner toast. I revert to my proper subject, the Royal Institute of British Architects, the corporate organisation of the architects of this country. Now the architect has a certain advantage over my own profession, over the medical profession, over many other professions, a certain advantage and also a certain responsibility. In my profession, in the medical profession, and in many other professions, one may say it will be all the same a hundred years hence, but the architect cannot say that. His work is enduring. At all events it is enduring if he works with Aberdeen granite or British freestone. I am not quite so sure about reinforced stucco. The work of the architect is enduring, and I sometimes regret that the Scottish architects of the eighteenth and early nineteenth centuries did not more fully realise this truth. But I am quite sure that those who are gathered here to-night fully realise it, and fully realise their responsibilities to future generations. There is perhaps only one order in the community that can claim an immortality greater than that of the architect. I mean the poet. Only the poet can claim to have created something that will endure any work of man's hands. Architects who are here present will take some consolation in the fact that poets in the present day are so scarce that their claims to superior immortality need excite no jealousy. I venture to predict that that Cenotaph in Whitehall will outlive all the poetry that has sprung from the late European War. I appreciate the honour of being invited to propose this toast, and I have special pleasure in coupling it with the name of such a distinguished member of the profession of architects as occupies the chair to-night.

THE CHAIRMAN (in reply) : It was not for nothing that we men of England joyfully accepted the invitation to have the conference in this city. We know where good-fellowship is to be found, good fare and goodwill, and we have come here to enjoy those things. You sometimes come south to share our toil, our remunerative toil. We come here joyfully to share your pleasures. I am very proud to have been the President of the Institute. It has been a special gratification to me to realise that your Incorporation has been established during my presidency, although I cannot say that, personally, I have had much share in carrying it through. In doing honour to us, you have at the same time recognised through the R.I.B.A. the supremacy of Britain for the moment ! Nobody can quite know how big an affair the R.I.B.A. is unless he has been a President or one of the Secretaries of the Institute. He cannot have the faintest notion of what the Institute really means, not in Britain only, but in the world. It is astonishing to me—and very many things which come into the President's hands do not find their way into the ordinary printed records of the society—to realise that the man who stands for the moment as President is in the position of being virtually the Head of a Republic on which the sun literally never sets. From all over the world we get correspondence. Sometimes it is worry, sometimes it is congratulations, and sometimes it is merely a show of pure affection. I shall

retire in a few weeks into the publicity of private practice, and a new man will reign in my stead, and I desire to commend Mr. Gotch very warmly to you.

I happen to be very much interested in architectural education. I am going to spend next week in examining Scottish schools, a pursuit which is always one of peculiar pleasure to me. I know beforehand what I am going to see—good work, good teachers, and diligence. I want to say this about education in architecture, that it cannot go on without the cordial goodwill of the architects who practise in the places where the education is conducted. Nowhere more than in Scotland is that goodwill so abundantly seen. Wherever I go I see that the architects are the friends of the young men in this matter of education. That means a great deal even now, and it has meant a great deal in times past. Our fathers did a great deal and made a great sacrifice when they realised the time had come for systematic education for young architects. To put the matter on its lowest level, it meant giving up pupils' fees. That generous spirit, that national spirit, has gone on increasing, and I heartily congratulate Scotland on her work in that direction. It will not have escaped your notice that there has been an Institute election. You will treat me, I hope, merely as a fellow-voter for the moment. It is quite an embarrassing situation, and I hardly know where to begin, but I am going to begin with congratulations. That this Institute should have parties within it is not only unreasonable but absurd, because we have only one object, the advancement of architecture. Of course, differences of opinion must arise as to how certain results are to be achieved. But what I want to say is this, and I say it without casting any reflection on anybody's conduct or character, that I believe we shall never retain any influence whatever in our great and glorious Institute unless we fervently and steadfastly make up our minds that we shall always fill our Council and the presidential chair with persons who, we think, are reasonably representative of the forefront of architecture. I know it is a case of "glasshouses" for me to talk like that, having been a member of Council for so many years, and having occupied the presidential chair, a post which, I may add, I never sought, though it was a great honour to have filled it. It may occur in the future that there is a wish to put in persons representing minor issues on small questions in dispute. That will not succeed. The Institute is too big a body for that kind of thing to be expected to succeed. Remember it is world-wide, remember it covers Britain. We must make perfectly sure that we put men there who we feel will represent, not a particular view on a particular subject, but architecture. Before sitting down let me add a word about the Incorporation of Architects in Scotland. I wish it the longest possible life, every kind of prosperity, every happiness, and every success.

LORD ALNESS (in proposing the toast of "The Incorporation of Architects in Scotland and the other Allied Societies") : As you will see, this toast is a composite one, and the first branch of it relates to the Incorporation of which we have heard so much to-night. As a loyal Scot, and withal I hope a modest one, I was not in the least surprised to be informed that the Scottish Society, of all the Allied Societies, was probably the most important. That, of

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

course, is as one would expect, and as it ought to be. I am told that the Scottish Society has a membership of nearly 600, with chapters in all the great cities of Scotland, and that it is steadily increasing in vigour and influence. There is just this to be added, that, owing to the munificence of Sir Rowand Anderson, whose name is familiar to all of us, the Society has been enabled to vote several thousand pounds to architectural education, and no man can gainsay or exaggerate the importance of that topic. But the toast is not merely parochial ; the second branch of it relates to the other Allied Societies and gives an imperial aspect to the toast. If you ask me where these Allied Societies are to be found, I think the answer would be in every corner of the British Empire. Australia, New Zealand, and Canada have already contributed their quota, and, to-day, I understand that South Africa and Singapore are being enrolled as members of your great organisation. That is a notable achievement. It is a triumph of federal organisation. Now may I just add this, bearing out what Lord Sands has said that your profession and mine not infrequently meet ? It has been my lot as a practising counsel at the Scottish Bar to examine architects as friendly witnesses, and to cross-examine them as hostile witnesses. Naturally, I have more vivid recollections of the latter process than of the former process. I think Mr. Marwick shares some of these recollections. Well, I have always realised, when I was in that position, the difficulty in which a counsel is sometimes placed. He is sometimes supposed in a few short hours to equip himself with a special knowledge which will enable him to deal on equal terms in the witness-box and, if possible, overthrow a man who has devoted his whole life to the study of the topic. What my experience may have been in that particular it is not for me to say, but it is a difficult task as you will readily understand and admit. May I just add that architects not only come into contact with lawyers from time to time, but also with Ministers of the Crown. It was my experience when I was Secretary for Scotland, and as such I was responsible for the housing programme in Scotland, to come into contact with architects on both sides of the Border, and may I say that I shall not readily forget the efficiency, the reliability, and the helpfulness which I experienced at their hands ? But, after all, giving evidence in the witness-box and erecting houses for the working classes are but mere by-products of your great profession. That profession has many notable characteristics, one or two of which have been referred to already. One of these is its age. I was greatly struck the other day by a phrase which I came across in that connection. It was used by the Public Orator at Cambridge in presenting an honorary degree to one of the most illustrious architects of the day, Sir Aston Webb. In addressing him, the Public Orator used the words of the Roman poet, "God was the First Architect." Was the Roman poet not right, and does it not fall to the human architect either to add to or to subtract from the beauty of the world which the Divine Architect has framed ? Age is one of the characteristics of your profession. The other has been referred to by Lord Sands, and that is the permanence of your work. It is given to few of us to create work which will earn immortality. That is your privilege. It is a high responsibility. You do not need to go to Assyria or to Egypt, although great lessons can be learned in the East. You do not have to travel

beyond the work of Wren in London, or beyond those great shrines which I understand you have visited to-day, in my old constituency in the Borders, round which so many sacred and soul-stirring memories cluster, in order to appreciate that, though the work of most men dies, the work of the architect lives ; and therefore a great trust devolves upon you of which I am confident you will prove worthy. I will content myself by adding that your past provides at once an inspiration and a challenge for the future. I wish that your future may be equal and, if possible, may even excel your past. It is my privilege to link with this toast two well-known names. There is the name of Mr. Marwick, of whom I have had experience both as a friendly and a hostile witness. There is also the name of Mr. Francis Jones, President of the Manchester Society of Architects, and therefore representative of a city which in vigorous enterprise, in ordered progress, and in high culture may even vie with the city in which you are met to-night.

MR. T.P. MARWICK, President of the Incorporation of Architects in Scotland (in reply) : I desire on behalf of the Incorporation to convey to Lord Alness our warmest thanks for the kind words he has spoken, and I thank you all for their generous reception. The Incorporation, though young in years, has already well over six hundred members. You have heard of the gift to us of a home suitably equipped and endowed. We shall ever cherish the memory of our benefactor, and shall prove our gratitude by faithfully administering the trust placed in our hands. We shall exercise all our knowledge, skill and energy, in the endeavour to do good and useful work, and to achieve the objects the donor had at heart. I may state that we have dedicated over one-quarter of our entire capital to educational purposes. We have, in conjunction with the other beneficiaries, assisted in the publication of the recently issued beautiful book of measured drawings of Scottish Domestic Architecture. We are working in conjunction with the Board of Trustees for the National Galleries of Scotland in the publication of the National Art Survey Drawings. I recommend to your special attention the first volume. The second volume is being printed now for early issue. We purpose, if possible, proceeding with the completion of several hundred drawings partly prepared, and such additional drawings as may be required to complete the survey of every important historical and architectural monument in Scotland. We shall not be satisfied until this is done, so as to preserve accurate records of these before the tooth of time accomplishes their destruction.

We have commenced the publication of a quarterly magazine ; have a benevolent fund to help those who fall by the way ; and in other fields of endeavour we are trying to do good work for the community and for the advancement of the art of architecture.

I may state also that we are taking preliminary steps to obtain a University Degree in Architecture, and matters are well advanced for this in Glasgow. In the Edinburgh Chapter a special committee will suggest a series of existing classes in the University, Heriot-Watt Technical College, and the College of Art, so as to form a School of Architecture. We think this can be done, and by adding lectures in civic design and professional practice it would make a complete course. Degrees are granted in London, Liverpool,

THE CONFERENCE BANQUET

Cambridge, and several other English Universities, so that there is no reason why Scotland should lag behind.

Of course we quite appreciate the fact that a great creative artist is specially endowed by nature, that little can be done probably to develop imaginative qualities, but we know that in scientific and practical work an immense amount of good can be accomplished by systematic training. Art by itself is apt to starve in these days, and our desire is to present prospects of a good status and reasonable reward to young men of ability and education wishful to enter our alluring and fascinating but very neglected profession.

The Incorporation are also anxious to assist in closing the door to the practice of architecture by the unqualified. We consider that architects require as much education and ability as those who practise law or medicine. They ought to live in as cultured an atmosphere, their work is as important, and they are as vitally interested in the health, well-being and good guidance of the community.

The Incorporation exists at present solely as a consultative and administrative body, and its formation ought to give the profession here a solidarity, force, and influence which at present it only possesses to a limited degree. This influence they hope to be able to utilise in fostering the growth of our towns and villages on artistic, practical, and sound financial lines, in developing the aesthetic sense of the community, and in endeavouring to arouse and widen public appreciation of architecture.

In the United States of America a very marked advance in architectural talent has taken place of late, largely owing to the foundation of Schools of Architecture, and the stimulation of public interest. During the last five and twenty years the design of their public buildings has immeasurably improved in all the qualities which make for good art. This was clearly shown in the recent exhibition of American drawings in London, Glasgow and other cities. We want to travel along similar lines.

Architects write the history of a nation in stone. They erect the milestones on the highway of civilisation and progress. Their work affects the health and aesthetic education of the people and endures for generations either to elevate or degrade public taste. Publicity stimulates interest, and our success in the long run depends upon public interest. Architectural work of importance is surely worthy of as much attention as a prize fight, a football match, or a horse race. So long as men of conspicuous talent are unappreciated, and their most earnest efforts passed by without intelligent criticism and recognition, they will be discouraged and mediocrity will abound. There is no stimulus to excel, whereas there is no limit to the benefit due acknowledgment of merit may accomplish.

One loves to see praise and pleasure given to the worthy while they are living to enjoy them. Post-mortem eulogy is of as little avail as laying wreaths upon unresponsive sod. The dead neither hear nor see. Let us therefore bring out our alabaster boxes now, and so hearten and encourage those who do well, that they go on and do better. As I said yesterday, look back 156 years and you will see that the enlightened public in this city in 1767 were in advance of the public of to-day. They knew and appreciated good work so highly that they actually gave the freedom of the

city and a gold medal to the architect who won the competition for the lay-out of the New Town. The present-day apathy of the public is so great that such happenings now are inconceivable. Talking of 1767 recalls the fact which you have already heard, that our present enlightened Corporation have appointed a Consultative Committee to co-operate with the Town Planning Committee of the Council in the work of city development on right lines. I trust this action will be followed in due course by the appointment of a Fine Art Advisory Committee such as exists in New York. If you read the last report of the New York Commission you will see a record of what has been accomplished. There can be no doubt that it tends to the production of noble, dignified, and well-proportioned buildings. It does good work in the creation and maintenance of all the accessories of a beautiful city, and one would like to see somewhat similar methods applied here.

I can assure you that the members of the Incorporation of Architects in Scotland are inspired by high ideals, and you all know that high ideals are a prepotent influence in the spiritual and intellectual progress of a nation. They intend to work, so far as they are able, for the realisation of these ideals, and, while progress may at first be slow, they are encouraged by the knowledge that the ideals of yesterday become transmuted into the actualities of to-day.

I thank you all very sincerely for your courtesy and for your generous kindness in wishing us God-speed in our work.

MR. FRANCIS JONES [F.J.], President, Manchester Society of Architects : It is a great honour to have been asked to reply on behalf of the Allied Societies. In the first place I should like to say something about the elections to which the President referred. You all know that those elections have resulted in a clean sweep of the old Council. All I want to say about that is this, that we have not finished by making a clean sweep of the old Council. It is now up to the new Council, all of us, to get inside the Institute that unity which will prevent any repetition of what has occurred in the last two years. Mr. Marwick represents, one might say, the unity of Scotland. In other words, the Allied Societies of Scotland. The Royal Institute represents not only the combined Allied Societies of England, but also the combined Allied Societies of Scotland as well, so that we have the whole body of British Architects in the Institute, and in that body we have to preserve a united front, or else we shall do no good. I would just like to point out two things : the first is that for the first time, as far as I am aware, we have the President of a provincial Society as President of the Royal Institute. Not only have we a President who is a provincial member, but I think I can say, and I feel everybody will agree with me, that we have a President whose term would probably have come long ago if he had happened to be not a provincial member but a London member. In other words, the only disqualification for Mr. Gotch's earlier election was the fact that he was a provincial member. I feel in electing him we have elected not merely a provincial member, but one of the most suitable men we could have had as President of the Royal Institute of Architects. The second thing I would like to say is just to point out that the new Council is, with the representation of the provincial societies, larger than it ever was before.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Therefore the provincial members will agree with me that the Council ought to be better than ever it was before. There again it depends on the intelligent members' diligence in turning up to meetings. As a provincial member myself, it will be a considerable tax upon my time to come up to London to attend the meetings, but if members are elected to the Council they must really turn up, and show their interest, and carry there the interests of their own societies. I will content myself at this late hour with thanking you very much for the manner in which you have received this toast, and I have pleasure in calling upon you to give three hearty cheers to our retiring President, Mr. Waterhouse, as this will be his last public appearance, probably, in the Presidential Chair of the Institute. The occasion demands some cordial recognition on our behalf.

Three cheers were given with great warmth to the retiring President, and Sir Robert Lorimer, in proposing a vote of thanks, paid a notable tribute to Mr. Waterhouse for his great services to the Institute during his two years of office.

LIST OF MEMBERS ATTENDING THE CONFERENCE.

Among those present at the Conference were the following :—Professor Patrick Abercrombie [A.], Mrs. Abercrombie, Professor S. D. Adshead [F.], Mrs. Adshead, Miss Adshead, J. P. Alison [F.], John Armour [F.], James A. Arnott [F.], Mrs. Arnott, J. A. Arthur, Lt.-Col. J. Maurice Arthur, C.M.G., D.S.O. [F.], Wm. Baillie [A.], Wm. Baillie [*Licentiate*], Mrs. Baillie, Andrew Balfour [F.], Mrs. Balfour, Major Harry Barnes [F.], John Begg [F.], R. Blackadder, Professor Baldwin Brown [*Hon. A.R.I.B.A.*], D. M. Brown [*Licentiate*], Wm. Brown [F.], G. Washington Browne, R.S.A., Herbert T. Buckland [F.], Miss Buckland, James D. Cairns [*Licentiate*], Mrs. Cairns, A. Lorne Campbell [F.], G. E. Charlewood [A.], D. J. Chisholm [A.], Major Hubert Corlette, O.B.E. [F.], H. R. Cowley [A.], George Craig [*Licentiate*], James H. Craigie [F.], Frank Crombie, J. C. Cunningham, H. A. Dalrymple [A.], Mrs. Dalrymple, Wm. Davidson, F. W. Deas [F.], R. Burns Dick [F.], F. M. Dryden [*Licentiate*], Mrs. Dryden, Chas. Dunch, James B. Dunn, A.R.S.A. [F.], Mrs. Dunn, F. E. Pearce Edwards [F.], Mrs. Edwards, James Ellis, Mrs. Ellis, Chas. T. Ewing [*Licentiate*], J. Graham Fairley [F.], J. McLellan Fairley [A.], R. W. Ferguson [A.], Sir Banister Fletcher [F.], Lady Fletcher, D. W. Galloway [*Licentiate*], Hugh Gavin, Edw. M. Gibbs [F.], James Gillespie [*Licentiate*], J. Alfred Gotch, F.S.A. [F.], Alex. Grant (President Inverness Architectural Association), John P. Grant [A.], Geo. H. Gray [A.] (Hon. Secretary Northern Architectural Association), Hastwell Grayson [F.], Mrs. Grayson, Miss R. C. Grayson, William B. Halley, Robert L. Hardie, J. Wilson Hays [A.], J. Macintyre Henry [F.], H. L. Hicks [A.], E. Percy Hinde [F.], Victor T. Hodgson [*Licentiate*], Mrs. Hodgson, Richard Holt, G. J. Howling (Editor *Architects' Journal*),

Harry Hubbard [A.], T. Harold Hughes [A.], Mrs. Hughes, Theodore K. Irvine, John Jerdan [F.], Mrs. Jerdan, Francis Jones [F.] (President Manchester Society of Architects), Mrs. Francis Jones, Ivor P. Jones [A.] (Hon. Secretary South Wales Institute of Architects), Mrs. Ivor Jones, J. Herbert Jones (Hon. Secretary, Western Branch, South Wales Institute of Architects), W. T. Jones [F.] (President Northern Architectural Association), Stewart Kaye [A.], Arthur Keen [F.] (Hon. Secretary R.I.B.A.), C. H. Kemphorne [*Licentiate*], John Keppie [F.], Henry F. Kerr [A.], A. Hay Lamont [A.], Mrs. Lamont, H. V. Lanchester [F.], Mrs. Lanchester, T. Alwyn Lloyd [F.], Mrs. Lloyd, Alfred G. Lochhead [A.], James Lochhead [F.] (President Glasgow Institute of Architects), J. A. E. Lofthouse [F.], Alex. Lorimer [*Licentiate*], Sir Robert S. Lorimer, A.R.A., R.S.A. [F.], Lady Lorimer, Ian MacAlister (Secretary R.I.B.A.) Mrs. MacAlister, Malcolm S. McCallum [A.], Alex. McGibbon [A.], J. A. H. Mackenzie, Mrs. Mackenzie, D. M. Mackie, T. F. MacLennan [A.], J. Ross McMillan [F.], Alex. McWilliam [A.], Craigie Marwick [*Licentiate*], T. P. Marwick [F.] (President The Incorporation of Architects in Scotland), T. R. Milburn [F.], Mrs. Milburn, Wm. Milburn [A.], Geo. Angus Mitchell [A.], Geo. Bennett Mitchell, M.B.E., D.L., R. M. Mitchell [*Licentiate*], Mrs. Mitchell, James A. Morris, A.R.S.A. [F.], J. Inch Morrison [*Licentiate*], Mrs. Morrison, R. H. Motion, Mrs. Motion, Miss Edith Naylor, J. Bryan Nisbet [*Licentiate*], G. Dale Oliver [R.F.], Barry Parker [F.], Alex. N. Paterson, A.R.S.A. [F.], Mrs. Paterson, Geo. A. Paterson [A.], Mrs. Paterson, James Paterson, R.S.A., J. Wilson Paterson [A.], Mrs. Paterson, Wm. Patterson, A. F. Balfour Paul [*Licentiate*], W. T. Plume (Hon. A.R.I.B.A.), F. A. Richards [A.], Mrs. Richards, James Robb, Thomas Ross, James Salmon [F.], Mrs. Salmon, David Salmond [F.], Wm. Salmond [*Licentiate*], Mrs. Salmond, Thos. W. Sharpe [*Licentiate*], Mrs. Sharpe, Stewart Sim, George Simpson (Edinburgh), George Simpson [*Licentiate*] (Glasgow), G. Sinclair [A.], Laurence H. Smart, J. Llewellyn Smith [*Licentiate*], Thomas Smith, Miss Smith, Chas. G. Soutar [F.] (President Dundee Institute of Architects), Mrs. Soutar, John Steel [F.], D. A. Stewart [*Licentiate*], John Stewart [F.], T. Aikman Swan [A.] (President Edinburgh Architectural Association), A. A. Symon [*Licentiate*], Walter Tapper [F.], H. A. Tarbolton [F.], John Taylor, L. W. Taylor, H. Teather [F.], Mrs. Teather, Miss Teather, Percy Thomas, O.B.E. [F.] (President South Wales Institute of Architects), Mrs. Thomas, W. D. Thomas, P. H. Thoms [F.], Wm. Thomson, W.S., Professor R. Traquair [F.], Charles E. Tweedie, J. W. Ward [*Licentiate*], Edward Warren, F.S.A. [F.] (President of the Berks. Bucks and Oxon A.A.), Paul Waterhouse, F.S.A. (President R.I.B.A.), Geo. W. Watson, John Watson [F.] (Edinburgh), John Watson [F.] (Glasgow), John F. Watson, Maurice E. Webb, D.S.O., M.C. [F.], Herbert A. Welch [A.], Wm. B. Whitie [F.], J. Teifion J. Williams, J. A. Williamson [A.], John Wilson [F.], Mrs. Wilson, John Wittet [*Licentiate*]. Mrs. Wittet, Wm. Woodward [F.], J. A. Woore [A.], Mrs. Woore, Percy S. Worthington, Litt.D. [F.], C. J. M. Young [A.], G. P. K. Young [F.]; Guy St. J. Makin, of South Australia.

THE R.I.B.A. CONFERENCE IN EDINBURGH

A RÉSUMÉ OF THE PROCEEDINGS

By universal consent the Conference at Edinburgh was the most successful of the series. To say so is not to disparage the events of Liverpool and Cardiff. It is really a compliment to them. The enthusiasm created by those two memorable meetings was largely responsible for last week's success. Those who had enjoyed the hospitality of Lancashire and South Wales came eagerly to Edinburgh and brought their friends with them. The result was an attendance that broke all records.

The members, who arrived in Edinburgh on the 13th, were entertained at a delightful Smoking Concert by the Incorporation of Architects in Scotland, whose President, Mr. T. P. Marwick [A.], occupied the chair. An evening of a completely Scottish character was opened by a speech of warm and kindly welcome from the Chairman, and closed by an expression of thanks on behalf of the guests by Mr. J. A. Gotch [F.]. If there was any ice about, it was very decisively broken that night.

At 10 o'clock the following morning more than 200 members gathered in the Council Room of the City Chambers, where Lord Provost Hutchison and the Magistrates of the City of Edinburgh gave a cordial welcome to the Conference. Mr. Gotch took the chair, in the unavoidable absence of the President, and two admirable lectures were delivered. Mr. Marwick on Edinburgh: "Its Rise and Progress," and Mr. Lanchester on "The Place of Architecture in City Development," formed a perfect combination, and the discussion that followed sustained the very high level of the lecturers, to whom a cordial vote of thanks was given on the motion of Mr. Arthur Keen, whose graceful little speech closed the proceedings.

The whole party then walked up by way of the High Street, the Lawnmarket, and Castle Hill to the Castle, where they were joined by others who had preferred the sights of Edinburgh on a sunny morning to the solemnities of the City Chambers, and an excellent luncheon was served in the old rooms in Crown Square. Four brawny pipers played their loudest outside the windows, but the cheerful noise of conversation more than held its own.

After a rapid inspection of the Castle, including the Armoury and Queen Mary's apartments, a group photograph was taken on one of the slopes of the Castle Rock, and the party then embarked on charabancs and drove down the famous "Mile," through the High Street, past St. Giles' Cathedral, and down the Canongate to Holyrood Palace, where by special permission the State Apartments were visited. The drive was then continued round Holyrood Park and Arthur's Seat, and back through the New Town to the National Gallery, which was the scene of a cheerful "At Home" in the

setting provided by the national collection of pictures. There was just comfortable time to dine before the Reception by the Lord Provost in the Freemasons' Hall. The gorgeous robes of our host, the fearsome weapons of his attendants, the cheerful music, the solid hospitality, and the welcome presence of many of the leading figures of Edinburgh life, all contributed to the success of a delightful evening.

On the morning of the 18th a still earlier start was made, for at 9.15 a procession of charabancs started on a round tour which covered some of the most beautiful scenery of the Scottish border country. Over the hills by Lauder and Earlston to the Tweed—the ruins of Dryburgh Abbey—an energetic lunch at Melrose—a visit to the ruins of Melrose Abbey—then up the valley past Abbotsford to Peebles and tea; so far, the weather held out. A mild rain chased the party back to Edinburgh, but no great harm was done, and everyone was in time for the great closing event, the Conference Banquet in the Freemasons' Hall. Nearly 200, including an exceptionally large number of ladies, were present. Our guests included many of the most distinguished of Edinburgh's citizens. The Southern visitors were thrilled, and some of them intimidated, by the ceremony of the entry of the Haggis. At last we had the President in the Chair and the speech that we had all looked forward to. From our guests we had eloquence, wit, and wisdom. The evening closed with tumultuous enthusiasm.

Very wisely, the final day was "go-as-you-please." So many people wanted to see so many separate things that organised movement would have been less helpful than usual. Everyone made his own arrangements, and though the Conference ended officially on Saturday it was not until Monday that the last of the visitors were able to tear themselves away.

As usual, the work of organisation fell almost entirely upon the tireless and self-sacrificing members of the local "Arrangements Committee." To ensure the smooth running of the crowded programme months of preliminary work had to be done. The complete success of the Conference showed how ungrudgingly that work was done. Their names ought to be recorded here. Under the leadership of Mr. Marwick were Mr. John Begg [F.], Mr. John Kepkie [F.], Mr. Henry F. Kerr [A.], Mr. F. C. Mears, Mr. J. McL. Morrison [*Licentiate*], Mr. A. N. Paterson [F.], Mr. T. A. Swan [A.], Mr. John Watson [F.], Mr. A. Lorne Campbell [F.], Mr. William Davidson, Mr. Stewart Kaye [A.], Mr. J. R. M'Kay [A.], Mr. E. J. MacRae [A.], Mr. J. Wilson Paterson [A.], Dr. Thomas Ross, Mr. H. O. Tarbolton [F.], Mr. James B. Dunn [F.], Sir Robert S. Lorimer [F.], and Mr. T. F. MacLennan [A.].

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Foremost among this band of workers were Mr. Marwick (the President), Mr. A. Lorne Campbell (Convenor of the Receptions Committee), Mr. Stewart Kaye (Convener of the Excursions Committee and stentorian C.G.S. of the motor parties), Mr. J. R. M'Kay (Convener of the Hotel Accommodation and Hospitality Committee), Mr. Henry F. Kerr (Convener of the Programme Committee), and Mr. J. Wilson Paterson, of H.M. Office of Works, who helped us so admirably in the visits to the Castle, to Holyrood, and to Dryburgh and Melrose Abbeys. To all of them, and to Mr. Glassford Walker, the ever courteous and careful Secretary of the Incorporation, upon whose willing shoulders fell so heavy and continuous a burden, we owe a debt of thanks that cannot be adequately expressed here.

And outside our own body we are under a deep obligation to those citizens of Edinburgh whose gracious hospitality did so much to ensure the success of the Conference. Above all, we are indebted to Lord Provost Hutchison for the real interest that he took in our proceedings, for the permission granted to us to hold our inaugural meeting in the City Chambers, and for his generous hospitality in the Freemasons' Hall.

The Provincial Conference of 1923 has set a standard that it will be hard to equal, perhaps impossible to surpass, in future years.

I. M.

Copies of the Conference Group Photograph can be obtained from Mr. E. Holford Debenham, 4 West Maitland Street, Edinburgh. The prices are 8s. each in sepia, 7s. each in black.

The President's Approaching Retirement

At the General Meeting on 25 June Mr. ARTHUR KEEN, after the presentation of the Royal Gold Medal to Sir John J. Burnet, referring to the retiring President, said : I have to bring you back to plain English with one or two announcements of forthcoming events ; but before doing so it occurs to me to remind you that this is the last occasion on which Mr. Waterhouse will be taking the chair at any of our meetings as President, during his present term of office. I say " his present term " because it is possible that a later period of office might succeed this one. I think we all appreciate—certainly no one appreciates more fully than I do—the value of the services that he has rendered to the Institute during the time that he has held the position of our President. I have been altogether surprised, from time to time, to find how much of his valuable time he was willing and able to devote to the service of his fellow-members here. There is nothing that he has been called upon to carry out that he has not applied himself to with his utmost ability, and with all the time that was necessary to be found for the particular business involved. He has presided over our meetings with the utmost distinction, and there has hardly been an occasion when he has been expected to be here that he has failed to be present. I might speak for a long time without exhausting all the virtues of the President I find in Paul Water-

house, and I do not know that I can do better than remind you that he is a very worthy successor to a very worthy father who held the same position before him. We remember, with the greatest pleasure, his father's tenure of the office, and it will be a very long time before we cease to think with pleasure of the way in which his son has filled the chair. I cannot speak highly enough, or feelingly enough, of the kindness, the consideration, the tact, and the good feeling with which he has conducted the business of our meetings on all occasions ; and I think we have to be profoundly grateful to him for all that he has done, not only in the way of carrying on the business of the Institute, but in the way of advancing the very best interests of this great Society. In the matter of education he has distinguished himself exceedingly ; he has taken an enormous interest in the business of our Board of Architectural Education, and he has carried the work of that Board to a very high point of efficiency. There is no aspect of the work of this Institute with which he is not fully familiar, and in connection with which he has not carried the work a considerable step further than it had reached before. And I think we have to express ourselves as very, very much indebted to him for all that he has done on our behalf during the time that he has occupied the Chair of this Institute.

CORRESPONDENCE

Registration

The following letter on the subject of Registration has been received by Mr. MacAlister from Mr. Poulter.

13 Arlington Street, St. James's, S.W.1.
14 June 1923.

DEAR MR. MACALISTER,—I am constantly receiving letters and pamphlets on this subject, all too numerous to answer. I wonder whether you could find space in the JOURNAL to give publicity to my views.

I consider that all members of the Institute should have a voice in its conduct, especially now reconstruction is contemplated in the form of Registration. It is, however, disconcerting to find at these times such a lack of unity among architects, also regrettable that some of us are turning into amateur politicians.

The trend now is likely to expose us to possible rupture and to general ridicule, both of which are unlikely to help Registration or the status of the Institute.

If Registration is to come, it must be handled calmly and broadly. One hears a lot of nonsense about Unification and Registration; surely Registration is Unification! If not, what is our case? Are we to ask for a monopoly for a minority? How far will this take us? We must have the support of the majority of all interested in architecture, whether members of the Institute or no', even of those unqualified to practise, if they can show substantial outlay of time and money with the object of becoming architects. I am under the impression that we have their support. If not, our case is hopeless.

I do not hold with the policy of forging blindly ahead, which was seriously put forward at one of the general meetings of the Institute.

Registration seems a subject on which architects might wisely be ignorant, although we are expected to know everything else. By dabbling in this subject, are we not very much like the amateur who tries to be his own architect? The result is well known. An expensive and a prolonged failure.

The best course is to consult the leading authority on Registration, someone with a thorough knowledge of Parliamentary Law, listen to him and allow him to direct our application. A multitude of points will arise, and doubtless difficult opposition will have to be faced and overcome.

I confess I have not the ability nor the time to give the subject the serious thought it deserves, but simple questions such as the following will arise:—

On what grounds do we intend to make the application?
Is it for the betterment of design?
Is it to cheapen building?
Is it to overcome the shortage of housing?
Is it to create more employment for labour?

These are matters which are now in the minds of Members of Parliament, and the question of design is the only easy one to answer.

Then, again, what is meant by the term "Architect"? I am convinced that were all the members of the Institute asked to define that one word, the results would show an amazing diversity of opinion. In framing an Act of Parliament it must be definite. This is of great importance, although it sounds trivial, for we have to contend with and

arrive at an understanding with a great body of many able men, viz., engineers.

In spite of all these difficulties, there is a marked interest being taken in architecture by the general public, and no doubt by careful forethought it may be possible to put forward a case which would be of interest to and protect the general public and at the same time be to the encouragement of architects to carry on the oldest, most noble and necessary of arts.—Yours sincerely,

BRIANT POULTER [F.J.]

P.S.—It has been publicly stated that the Associates will have a grievance should Registration come into force. Doctors have their different degrees. Why should not architects?

Correspondence

THE ASSOCIATION OF LICENTIATES OF THE R.I.B.A.

3 Queen Street, Cheapside, E.C.,
18 June 1923.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—On behalf of the committee of the above association may I ask for a little space in your next issue to thank all those who have replied to my question with reference to the letter reprinted from the *Builder* of 25 May last.

It is impossible to thank individually the hundreds who have replied. For the moment it will interest the many to know that two Licentiates and two Fellows (who were once Cinderellas) do *not* agree with us; they are four contented men (two in the glory of the purple and two in the ashes), while 400, including Fellows (once Licentiates) do agree entirely, and many others sympathise.

The committee is grateful to those who, in addition to replying, have sent valuable suggestions which it is hoped may be put before the new Council of the R.I.B.A., and lead, through friendly discussion, to a satisfactory solution of the question at issue, and be one step forward towards unification and peace.—Sincerely yours,

JOHN E. YERBURY [Licentiate].

THE SURVEY OF LONDON. ST. LEONARD, SHOREDITCH. 21 Lingfield Road, Wimbledon Common, S.W.19.

23 June 1923.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—On page 500 of the JOURNAL Professor Richardson mentions Eyre's view of Shoreditch.

I have a set of these views of the Fortifications of London, but was informed recently at the British Museum that they are forgeries by a Victorian "architect and builder" named Peter Thompson, who lived near Dorset Square, Regent's Park.

He deceived many of the nobility and literary world from the Prince Consort downwards, including a library of the highest standing.

Architects and other collectors should be on their guard as a number of the "views" are printed on seventeenth or eighteenth century paper.

It is doubtful if "Captain John Eyre" ever existed.—I am, yours faithfully,

F. J. FORSTER [A.J.]

The Wren Society

Hardly had the bicentenary celebrations abated when a group of admirers of the great architect met together under the shadow of St. Paul's, at the suggestion of Mr. Mervyn Macartney, to devise the means of setting up a permanent and trustworthy record of Sir Christopher Wren's life and work.

It was agreed to form a Wren Society, whose objects should be to hunt out his drawings and other documents—portraits, letters, reports, accounts and miscellaneous documents throwing light upon that long and admirable life and its multifarious activities—and to issue them in published form to subscribers. There is a wide field for such a work. In the first place, Wren's biographers have hitherto been handicapped by a lack of reliable data, and a cloud of mistakes has consequently enveloped his career in obscurity. The depth of the gloom is illustrated by the fact that Sir Lawrence Weaver, whose admirable little book just published has done not a little to dispel it, on checking forty-seven of Miss Milman's dates, "found forty-five of them wrong, by from one to twenty-five years."

Again, the drawings have never been fully catalogued or sifted. Even the splendid All Souls' collection has never been reproduced as a whole, to say nothing of the many other known examples in museums, colleges and Government offices, as well as in private hands, companions to which hitherto unrecorded may well be unearthed by systematic search.

The work of the Walpole, Vasari, Dürer, Henry Bradshaw and similar societies shows what can be accomplished by a body of subscribers animated by a single object, and the Wren Society, which has already received promises of support from many eminent persons and bodies, has every reason to hope that its publications will be equally useful in the cause of art and history and equally full of interest.

These it is proposed to issue annually, over a period of some twenty years, in the form either of portfolios of reproductions of Wren's drawings or other illustrations of his works, or of volumes containing ascertained facts and unpublished records. Experience shows that such publications, in addition to their obvious utility, acquire in course of time a steadily increasing value.

The subscription will be one guinea, and the Society's publications, supplied free to members, will not be obtainable through other channels. Libraries and institutions will receive the same treatment as individuals, and, like them, may pay a Life Composition fee of fifteen guineas.

The Earl of Balfour has exhibited his interest in the Society's work by consenting to become its President.

The Hon. Secretary, Mr. W. H. Ward [F.R.I.B.A.], 2 Bedford Square, will be pleased to send the prospectus, which will be issued very shortly, to any persons who will supply him with their names and addresses.

The Architecture Club Dinner

There was a good attendance of members and guests at the Architecture Club Dinner, held on 21 June at the Hotel Cecil.

Mr. J. C. Squire, in a speech after the dinner, made the satisfactory announcement that the Club's Exhibition of Architecture, which was held in the spring, had paid its way, and that the same exhibition at Manchester had been visited by 22,000 people. Mr. Squire said further that at the present time they were negotiating with four provincial cities, and it seemed as if the show was going on more or less indefinitely like a travelling circus. They were considering having another one next year, and a great many suggestions had reached them. One was that they should have an exhibition of entirely bad buildings. He thought they might do this without difficulty. Allied to this was a suggestion that they should organise an incendiary branch which should arrange for another Great Fire of London, and that the second one should begin at about the place where the first left off. The originator of this suggestion did not wish to destroy Wren's churches in the City, but beyond the borders of the City there were large areas that might very well be destroyed without injury to anyone except the owners of the property. He could do nothing in public but treat such a suggestion with reprobation and leave it at that. It was, he said, his pleasure to propose the toast of Architecture, coupled with the health of Mr. Curtis Green. When one said architecture one was thinking of the present of architecture and the future of architecture. He would not stand there to drink to the architecture of the past, particularly not within those walls. Mr. Curtis Green, he said, was one of the first members of the club, and he was an architect of whom all who knew his work well approved.

Mr. W. Curtis Green, A.R.A., replying, said it was a very great honour to be asked to respond to architecture. He was afraid he had little to say and nothing amusing. They had been told that architecture was the "Cinderella" of the arts. There was nothing amusing about Cinderella. She was very nice, and she came into her own, and he thought that with so many present that was an indication that architecture was coming into her own. He did think that the number of the faithful and clear-sighted was a growing number, and that the younger men who had been educated since the war had a much better interest in it. He thought we owed a great deal to the schools of Manchester, Liverpool, and the colonies. In speaking of the improvement of architecture, Mr. Curtis Green said he could hear the pessimist say: "How about Regent Street?" The new Regent Street was not being built by the new men: it was being built by the old men, who were trying to catch up with the new. Further, there were to-day several living architects who had produced much greater work than any in Nash's time. The garden was full of weeds, but the people had got sight of the flowers in spite of the rapidity with which the weeds grew. They wanted more faithful and educated service. They wanted greater understanding from the public. It was a curious thing that in America all the big buildings went to the big men. Here, if the big buildings went to a prominent man, it was an accident.

WINDOW DESIGN

WINDOW DESIGN AND THE MEASUREMENT AND PREDETERMINATION OF DAYLIGHT ILLUMINATION

UNDER the auspices of the Illuminating Engineering Society, a joint discussion with members of the Royal Institute of British Architects and the Surveyors' Institution was held at the Royal Society of Arts on Tuesday, 27 March, when a Paper on the above subject was read by Mr. P. J. Waldram, F.S.I., and his son, Mr. J. M. Waldram, B.Sc. Mr. D. R. Wilson, of the Factory Department of the Home Office, presided.

The following is a *précis* of the Paper, which will be published in full in the *Illuminating Engineer*. An appendix explaining the methods of drawing diagrams to ascertain the possible hours of sunshine for windows at any aspect was published in the *Journal of the Surveyors' Institution* of April 1923.

The main object of all investigations into natural illumination is to enable the designer to perform with confidence three operations which at present are directed mainly, if not entirely, by guesswork and rule of thumb :—

(1) So to design windows that interiors are adequately lit for their intended purposes without excessive glass area ;

(2) To determine whether any existing interior is adequately lit ;

(3) To predetermine the degree to which any proposed obstruction will affect the natural lighting of a given interior.

The problems of natural illumination are intricate, but their difficulties are apt to be unsuspected. Evento-day it is somewhat difficult to find an architect or a builder who is not convinced that he knows all that it is necessary to know about illumination by windows. It is still more difficult to find anyone who does.

Our knowledge of these somewhat elusive problems has only been acquired during recent years.

In 1907 there was no illumination-photometer capable of measuring daylight ; its huge fluctuations were almost unrecognised, even by scientists, and the utter impossibility of estimating its varying intensity by the human eye was practically unknown. No co-ordinated theory on the subject had been published, and popular interest in it was small.

To-day we have Government Reports giving the results of a comprehensive series of daylight measurements taken in all classes of factories both by factory inspectors and by scientific investigators from the National Physical Laboratory, carefully collated and published with a clear and concise epitome of accepted theory.

DAYLIGHT FACTOR.

Visual impressions as to the intensity of natural illumination are most deceptive, and can be even absurdly unreliable. Any window or skylight is merely a narrow gateway through which only a very small portion of the sky can throw light into an interior, and as the light obtainable from such a portion of the sky is, *ceteris paribus*, closely related to the visible sky area, it is possible to express the real value of any window under any given conditions of

glass, obstruction, etc., as a fraction of the daylight existing outside ; and such a "daylight factor" has been found to be sensibly constant, at least under the grey and fairly uniform sky of dull days, when the effect of any obstruction of visible sky area is more noticeable and serious. Daylight factors are usually measured by taking practically simultaneous readings at any given point in an interior and on an unobstructed window-sill (sill ratio) or on a roof (roof ratio). Methods are described in the Paper for overcoming the difficulty of a sky of varying brightness.

The Departmental Committee set up by the Home Office early in 1913 to investigate the lighting of factories and workshops disclosed the need for authoritative data. This was duly compiled by the National Physical Laboratory, who reported that the method of measuring by ratios was not only the most reliable, but the only reliable method applicable to daylight illumination.

In spite of large and unsuspected fluctuations, it is therefore now possible to measure daylight and to value it for comparison with recorded averages found sufficient for similar or different purposes.

This is not to say that, merely because methods of measuring daylight have been devised and have proved valuable, our knowledge is either complete or adequate for ordinary requirements. Medical science did not reach adequate finality with the invention of the clinical thermometer. The clinical thermometer greatly assisted the doctor's observation, it did not make his diagnosis for him. The photometer will tell us what we receive under any given conditions ; but it will not tell us how we may obtain the same illumination under different circumstances, nor what we shall obtain if the circumstances be changed.

The only existing methods for predetermining windows are certain well-known rules which purport to determine the area of glass as a proportion of the floor area lit, possibly modified by keeping the window head at a minimum height determined by the depth of the room. Such rules, if correct for cases in which the obstruction of neighbouring buildings is negligible, must necessarily be incorrect for obstructed windows, for any obstruction necessarily alters the essential properties which enable a window to illuminate a room. These are :—

(a) The area, angular height and possibly the aspect of the visible sky at the back of the room or at the worst lit position in the room—which determines the minimum daylight factor due to direct light from the sky ; and

(b) The amount, and possibly the aspect, of the visible sky subtended at the window, which, in conjunction with the colour of the walls and ceiling, determines the contribution to be made to the minimum daylight factor by diffusely reflected light.

The term "visible sky" includes, of course, due allowance for any obstructions which can appreciably reflect light.

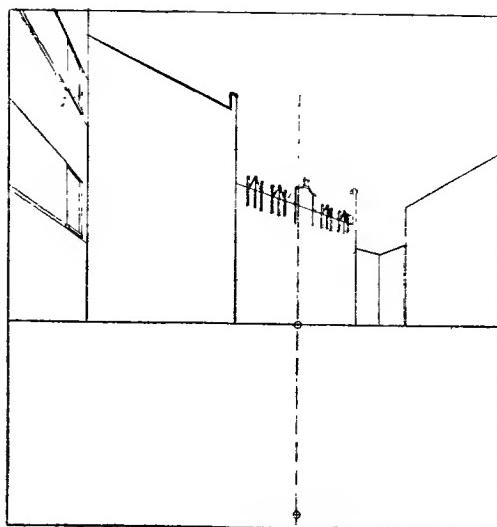


FIG. 1.—TYPICAL PERSPECTIVE VIEW OF OBSTRUCTING BUILDINGS

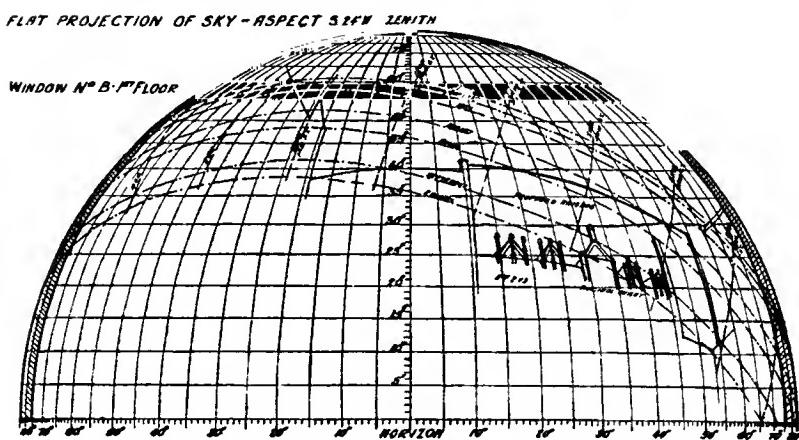


FIG. 2.—TYPICAL DIAGRAM SHOWING LOSS OF SUN DUE TO OBSTRUCTIONS

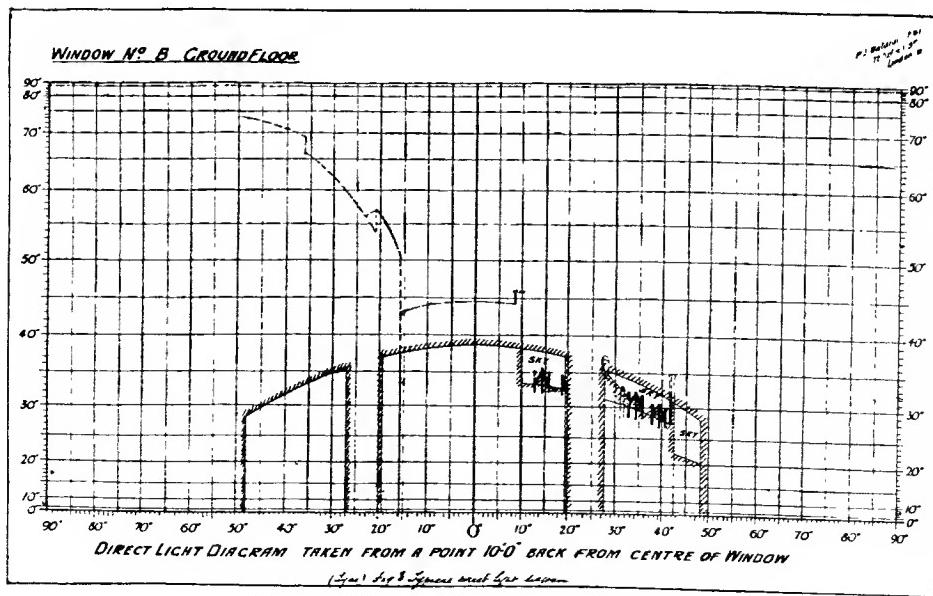


FIG. 3.—TYPICAL DIRECT LIGHT DIAGRAM

WINDOW DESIGN

Except in crowded towns, it is generally not difficult to light all interiors adequately by means of windows of moderate size and height without spoiling the balance of fenestration in adjoining elevations or incurring the disadvantage of excessive glass area.

This is rather apt to engender in the designer a misleading sense of ability to deal with all situations which may occur. It is only when he encounters cases of severe sky obstruction coupled with deep rooms and the necessity or desirability of retaining a small window area that he feels the need of more exact methods of predetermining daylight problems, for a mistake, once made, is generally irrevocable.

The object of this Paper is to supply that want. It is assumed that the dimensions of the interior, the window and the obstructions have all been fixed, and that it is necessary to ascertain whether those conditions will result in an adequate daylight factor at the worst lit point, or at any number of doubtful points in the interior.

It is thus at present mainly a trial and error method, and although, with its help, it may prove to be possible at a later date to formulate general rules giving the window dimensions necessary under any combinations of circumstances, the labour involved in arriving at such rules will necessarily be heavy.

The following summary of the operations necessary in any particular case will serve to indicate their simple character :—

(1) *Direct Light*.—From the worst lit positions in the given interiors, or from any number of doubtful positions, the sky visible through the window, windows or skylight over any obstructions which may be present is plotted on to a suitable measuring diagram, representing the quarter sphere of visible sky. The angular divisions of this sky diagram are so adjusted as to represent by the area of any piece of the visible sky its power of illuminating a surface at the point under consideration. Plotting can usually be done from the plans and sections, but the rather tedious work involved can be greatly reduced by the judicious use of simple trigonometry and by the aid of perspective projection.

The direct light factor is then obtained simply by comparing the area of visible sky with the area of the whole diagram.

(2) *Diffused Light*.—To the above must be added the contribution made by diffusely reflected light. We certainly require much more and much better data of this, but it can generally be estimated as lying between the limits of 1 per cent. (sill ratio) in the case of exceptionally shallow rooms with large windows and nearly white walls, about 0·4 to 0·5 per cent. in ordinary rooms with light walls and ceilings and small obstruction, and well below the grumble point of 0·4 per cent. sill ratio when the obstruction is material.

Diffused light, which appears to be approximately constant over all parts of an ordinary room, may be estimated by plotting on to a diagram similar in form but somewhat different in construction to that used for estimating direct light.

(3) *Sunlight*.—The hours of possible sun which can enter the room can be ascertained by plotting on to a

simple flat projection of the sky opposite the window, together with the apparent paths of the sun at different periods of the year across that sky, the sun paths being properly divided into periods of time.

If the result indicated proves to be insufficient or excessive, the diagrams show at once in what particulars any of the assumed conditions can most effectively be varied.

Figs. 2 and 3 illustrate the projection on to a sun and on to a direct light diagrams respectively of a group of buildings opposite to a window and shown in perspective in Fig. 1 in order to ascertain the effect of a proposed raising.

It should be emphasised that methods of measurement only serve to assist our judgment—they will not do our thinking for us. The clinical thermometer helps the doctor to use his medical knowledge and experience with more assured accuracy, but it does not supply the place of either qualification, for no two medical cases are exactly similar.

However great, therefore, may be the degree of accuracy to which we may bring methods of measuring and predetermining daylight, they can never take the place of intelligent observation, experience and judgment, for no two cases of lighting ever present the same features.

The improvement of cases of bad natural lighting is invariably attempted on the general lines of making the most of what sky is left. Light coming from the sky at too steep an angle to enter the window or at least to penetrate far into the room is caught on inclined mirror reflectors placed outside the window and directed more or less horizontally into the room.

The same effect is obtained by the use of prismatic glass either glazed in the window sashes or used in the form of independent outer sashes inclined at a suitable angle to effect the desired refraction.

Much care has been directed to the production of these prismatic glasses, of which some excellent kinds (Luxfer, Pilkington's, etc.) are on the market, and when properly installed they can undoubtedly effect remarkable improvements in the lighting of basements and of rooms at the bottom of deep light wells.

Where light is required mainly in a horizontal direction as in basement stores, they are excellent ; but for clerical work the unnaturally horizontal direction which they give to the light and their tendency to specular reflection and glitter are undoubtedly bad, and rooms lit with them should always be so arranged and furnished that the occupants shall normally work with a side light.

Mr. J. W. T. Walsh, of the National Physical Laboratory, said they were indebted to the authors for the new tools which they had described. He was particularly interested in the formula given in the Paper for predetermining the light from a window. He had applied it to actual cases together with the very long and intricate exact formula from which the authors had saved them. The difference between the two was extremely small. The formula would be of considerable use to them at Teddington, where they were carrying out investigations on parallel lines to those described in the paper. With reference to Mr. Waldram's comments on the N.P.L. method of measuring the light in existing buildings, he pointed out that, although there was undoubtedly something to be said in favour of comparing

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

the inside light with direct observations of the sky brightness, difficulties would occur in factories where none of the windows could be opened and a measurement made only through the glass which might be affected by varying degrees of absorption due to dirt on the glass.

Mr. G. F. Collinson, F.R.I.B.A., asked whether there were any foundation for a suggestion which had been made to him that light outside the sun's rays was stronger than the sunlight itself.

Mr. R. Langton Cole, F.R.I.B.A., asked for a fuller explanation of the statement that diffused light represented 1 per cent. of the sill light. He questioned the accuracy of representing the sky as a spherical surface. He thought there was some danger of Chancery Judges in ancient light cases being unduly influenced by abstruse formulæ.

Mr. J. Macintyre (H.M. Office of Works) expressed the hope that the Paper would induce architects to design windows for their real purpose rather than as features in an elevation. He regretted that the authors had not dealt with the problems of light wells.

Mr. A. Blok asked for information as to the loss of light due to dirt on glass. He had recently found by actual measurement a loss of 25 per cent. between clean windows and those with two months' dirt left on them.

The Chairman, in proposing a vote of thanks to the authors, mentioned that 75 per cent. of industrial operations were carried on by daylight, the problems of which had not in the past received the close study which had been devoted to those relating to artificial illumination.

Mr. Leon Gaster, seconding the vote of thanks, referred to the reports on the Lighting of Schools, by a committee appointed by the Society in 1913, and to the fact that one of the authors had been carrying out research on daylight for some years. He emphasised the need and the difficulty of regulations as to the cleaning of factory windows.

Mr. P. Waldram, replying to the discussion, pointed out that the small error, noted by Mr. Walsh, involved in attempting to calculate the light from a window opening by the formula used in setting out the measuring diagram was automatically corrected when the opening was plotted on the diagram. There was no need to use any formula ; the diagram did all the calculation necessary.

He agreed that there were exceptional factories where the new method of measuring existing light could not be used ; but suggested that the number of those in which the new method could be used and the old method could not was still larger.

The phenomenon referred to by Mr. Collinson was doubtless the fact, not so generally known as it deserved to be, that the light from white clouds was stronger than that received from unclouded blue sky. The actual rays of the sun were, of course, the most powerful illuminant they had.

Replying to Mr. Langton Cole, the proportion of the total light in an ordinary room which was contributed by diffuse reflection from walls and ceilings might under favourable circumstances amount to as much as 1 per cent. of the light incident on an unobstructed window-sill from a full quarter sphere of sky. This would be the same as the minimum permissible light on the desk of a schoolroom for young children, and about 2½ times the minimum at which reasonable adults would grumble.

He did not share Mr. Langton Cole's fear that Chancery Judges might be hypnotised by formulæ or by scientific methods. His experience was that they consistently refused to be influenced by anything which they had not thoroughly grasped. They sometimes proved to be extremely acute. In illustration he instanced one occasion when a highly complicated mathematical diagram had puzzled every expert in court, and even its author was obviously in difficulties. The Judge suggested that it became fairly obvious if one corrected what appeared to him to be a draughtsman's error in lettering, and this proved to be the case.

He regretted that the unavoidable length of the Paper had prevented the inclusion of the interesting but complicated subject of light wells referred to by Mr. Macintyre.

Mr. Blok's figures for absorption of light by dirt on glass were by no means abnormal. Clean sheet glass absorbed from 7 per cent. to 10 per cent. of light, according to thickness and quality, but absorption increased rapidly with dirt. Two months' dirt would easily raise the figure to 25 per cent. without the glass looking particularly neglected.

Mr. J. M. Waldram, replying to Mr. Langton Cole's objection, showed that the sky could be treated as a spherical surface, a flat plane of infinite extent, or as any other shape, provided due allowance were made in the formula.

At the conclusion of the discussion a number of specimens of different kinds of window glass, clean and dirty, with their absorption coefficients, were exhibited.

FIFTY YEARS OF BIRMINGHAM ARCHITECTURE.

BY GEORGE DRYSDALE [A.]

An interesting exhibition of architectural photographs and drawings has just been brought to a successful close at the rooms of the Society of Artists in Birmingham.

The exhibition was organised to celebrate the jubilee of the B.A.A., and to bring before the public the work done by local architects during the last fifty years. It also comprised illustrations of buildings erected in Birmingham from the designs of outside architects.

"A survey of the architectural designs produced during the last fifty years arouses mixed feelings. Broadly speaking, the period was a bad one for art generally, and while recognising the good work of a few gifted men, it must be admitted that the output during this period was distinctly poor. The poor average of design is attributable in part to the then prevailing standards of architectural taste, but still more to the inadequate professional training of the average architect. During the latter part of this period there were signs of marked improvement, both in standards of taste and in architectural education—an improvement that is increasing progressively at the present time. Birmingham architects are now producing many designs of good average merit, and some of marked ability, and the practitioners of this area stand high in the estimation of the profession."

The exhibition contained work in every style and manner, as was natural, embracing as it did a period of fashions ever changing. Generally speaking, the designs grow more severe as they become modern, great care being taken in

ROME SCHOLARSHIP

the management of detail, the spacing of the unit, colour and texture. This later desire for severity has its dangers, however, a flatness sometimes, a four squareness of contour and skyline. Birmingham architects are to be congratulated on the careful study they are making of their brick-work. This was the distinctive quality of the exhibition, and was emphasised in the numerous studies in Byzantine Romanesque church architecture and in the many highly successful designs for factory buildings.

The position of honour on the walls of the exhibition was given to the drawings and photographs illustrating the work of Mr. W. H. Bidlake, that "guide, philosopher and friend" of anyone interested in architecture, that natural help of the young Birmingham architect. Whether the medium be pencil, ink or water-colour, his drawings are always delightful, as were the all too few photographs he sent showing work carried out.

SIR ASTON WEBB, P.R.A.

An honorary doctor's degree was conferred on Sir Aston Webb, President of the Royal Academy, by Cambridge University on 12 June.

Presenting Sir Aston Webb, the Public Orator said that the Roman poet had said, "God was the first architect," and among men there were hardly any who could more securely hope for the eternity of their works, as they learned every day from Egypt and Assyria. Among the monuments of their generation posterity would assuredly find the name of Sir Aston Webb. Son of a distinguished painter, he took to the pencil and planned palaces and museums; not merely planned them, but what his mind conceived he saw rendered in stone. Before the doors of the King stood the marble cenotaph of Queen Victoria, the work of this man's art. The Palace of the King himself knew his hand of genius, and in Cambridge his work was to be found with its marks of clearness and simplicity.

DINNER TO PROFESSOR BERESFORD PITE, M.A. [F.]

Old students and the professional confrères and friends of Professor Pite will welcome the announcement that it has been arranged to hold a dinner in his honour on his retirement from the Professorship of Architecture at the Royal College of Art, as an acknowledgment of his services in the cause of art education.

Professor Pite was appointed to the School of Art in October 1900, at the same time as the appointments of Professor Lethaby and Professor Moira at South Kensington, so that he retires at the end of twenty-three years' occupancy of the professorial chair.

Professor Pite will continue his private practice and will still hold the Architectural Directorship of the L.C.C. School of Building at Brixton. His lectures at the School of Architecture at Cambridge will, of course, be also continued.

The dinner will be given at Pagani's Restaurant,

Great Portland Street, W., on Friday evening, 20 July. Applications for tickets (7s. 6d.) should be made to Mr. L. M. Austin [A.], who is acting as Hon. Secretary, Royal College of Art, South Kensington.

ROME SCHOLARSHIP AND HENRY JARVIS STUDENTSHP FOR 1923.

On the recommendation of the Faculty of Architecture of the British School at Rome, the Commissioners of 1851 have awarded the Rome Scholarship in Architecture for 1923 to Mr. R. A. Cordingley, A.R.I.B.A., of the University of Manchester; and on the recommendation of the same body the Henry Jarvis Studentship, offered by the Royal Institute of British Architects, has been awarded to Mr. Edwin Williams, A.R.I.B.A., of the University of Liverpool.

Mr. R. A. Cordingley is 27 years of age and was born at Sale, Cheshire. From 1911 to 1914 he was architectural pupil with Mr. Robert J. McBeath, of Sale, and attended the evening course at the Manchester Technical College. He served for four years during the war in the Royal Engineers and Air Force, and in 1919 entered the School of Architecture of Manchester University, winning the Henry Jarvis Travelling Studentship in 1920 and 1921 and the Manchester Institute of Builders Travelling Scholarship in 1922, when he was also elected an Associate of the Royal Institute of British Architects.

Mr. Edwin Williams, who is awarded the Henry Jarvis Studentship, is 26 years of age and is a fifth-year student of the School of Architecture of Liverpool University. He has held the Henry Jarvis Travelling Studentship of the Royal Institute of British Architects and the Lever Prizes in Architecture and Civic Design. Mr. Williams served for four years during the war in the 55th West Lancs Division. He was elected an Associate of the Royal Institute of British Architects in 1921.

With reference to the above awards, Sir Evelyn Shaw, the Hon. General Secretary of the British School at Rome, writes under date of the 27th June :

A resolution was passed by the Faculty of Architecture with reference to the drawings submitted in the Final Competition for the Rome and Jarvis Scholarships for 1923, as follows :—

"The Faculty regret to notice that competitors allow themselves far too great a licence in deviating from their esquisses, and in some cases the esquisses are so vague that they are of little or no value in indicating the competitors' designs. In any future competition the main lines and general composition of the design as shown in the esquisse must be adhered to in the finished design. Failure to adhere to this condition will in future render competitors ineligible."

THE WREN MEMORIAL VOLUME AND THE U.S.A.

Mr. Whitaker, in his notes on the Fifty-sixth Convention of the American Institute of Architects in the Journal of the American Institute, states that "previous to the Convention the Board of Directors authorised the acceptance of the proposal that the American Institute become, through its Press, the distributing agent in United States for the Memorial Volume on Sir Christopher Wren, issued in coincidence with recent bicentenary observance of his death."

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

NOTES FROM THE MINUTES OF THE COUNCIL MEETING, 11 JUNE 1923.

THE WESTERN AVENUE.

It has been decided by the Council to urge the Ministry of Transport and the Middlesex County Council to exercise their powers under the Development and Road Improvement Funds Act, 1909, to purchase immediately a strip of land of a width up to 440 yards in all in connection with the construction of the Western Avenue.

TREATMENT OF WASTES IN RURAL DISTRICTS.

It has been decided by the Council to urge the Ministry of Health to consider the issue of an Appendix to their present Model By-Laws to the effect that in Rural Districts where the number of cottages does not exceed eight to the acre, such cottages should be exempt from the By-Laws respecting the prescribed treatment of the wastes from sculleries and sinks.

THE ASSOCIATION OF TRANSVAAL ARCHITECTS.

The Association of Transvaal Architects has been formally admitted to alliance with the R.I.B.A.

THE BRITISH SCHOOL AT ROME.

Sir Reginald Blomfield, R.A., has been reappointed for a further period of three years to represent the R.I.B.A. on the Council of the British School at Rome.

Notices

VISIT ARRANGED BY THE ART STANDING COMMITTEE.

A visit has been arranged, by kind permission of the architects, Messrs. Helmle and Corbett, to Bush House, Aldwych, on Saturday afternoon, 14 July 1923. Members and Licentiates who desire to attend are requested to apply to the Secretary R.I.B.A. not later than Thursday, 12 July 1923.

ELECTION OF MEMBERS, 3 DECEMBER 1923.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the Election to take place on 3 December they should send the necessary nomination forms, etc., to the Secretary R.I.B.A., 9 Conduit Street, W.1, not later than 29 September 1923.

THE HOUSING TRIBUNAL.

The Housing Tribunal appointed by the Institute to deal with cases for fees in connection with Abandoned Housing Schemes give notice that they cannot consider any further cases submitted after 14 July.

Mr. Ernest Ravenscroft, Licentiate R.I.B.A., has been appointed Diocesan Surveyor for Berkshire.

Members' Column

MR. T. YOXALL.

MR. T. YOXALL [A.] has commenced practice at Courier Buildings, 31 Market Street, Longton, Staffs.

PRACTICE FOR SALE.

ARCHITECT wishes to dispose of sound practice in W.R., Yorks; established 20 years; covering wide variety of work. Moderate price to purchaser competent to take over work in progress—Box 2063, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

OFFICE TO LET.

ARCHITECT, Charing Cross, has furnished room to let; sole use; also combined office facilities; telephone. Moderate rent.—Apply Box 2163, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNER OR PUPIL.

ARCHITECT (A.R.I.B.A.), with small practice, South Coast, desires to meet young architect with view to partnership, or would be willing to take pupil.—Apply Box 923, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

OFFICE WANTED.

A.R.I.B.A. desires share of office—preferably West End address—part assistance given.—Box 2563, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENT WANTED.

ASSOCIATE (35), with all-round experience, including quantities, desires position as Leading Assistant, preferably with prospect of Partnership or working arrangement. Keen worker; moderate capital; London or Provinces.—Apply Box 435, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSISTANT WANTED.

AN ASSISTANT ARCHITECT is required for a firm of architects and surveyors practising in Singapore and Colombo. Public School and ex-Service man preferred. Age 25-30. A sound knowledge of construction, quantities, reinforced concrete, and perspectives desirable. Salary, Rs. 1,000 per month. Six months' trial with a view to an agreement for 2 or 3 years. Applications should be addressed to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A good Clerk of Works is also required for the above firm. Applications, stating age, experience, salary required and references, should be addressed to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MR. C. G. BOUTCHER.

MR. C. G. BOUTCHER, F.R.I.B.A., is home on leave for 3 months from Malay States. Any letters for him should be addressed care of the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP WANTED.

F.R.I.B.A. desires partnership in busy office; 28 years' exceptionally wide and varied experience, home (including London) and Continental.—Apply Box 9428, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

NEWARK R.E. OFFICERS.

CAPTAIN H. W. LOCKTON, R.E., 24 Castle Gate, Newark, will be pleased to receive names and addresses of Officers who were stationed at Newark during the war, as it is probable a reunion will take place in the autumn.

Minutes XVIII

SESSION 1922-1923.

At the Sixteenth General Meeting (Ordinary) of the Session 1922-1923, held on Monday, 25 June 1923, at 8.30 p.m., Mr. Paul Waterhouse, President in the chair. The attendance book was signed by 38 Fellows (including 12 Members of the Council) and 32 Associates (including 2 members of the Council), 2 Licentiates and a very large number of visitors.

The Minutes of the Meeting held on 11 June 1923, having been published in the JOURNAL were taken as read, confirmed and signed by the President. The following member attending for the first time since his election was formally admitted by the President:—

James Gray [A.]

The President delivered an Address on the Presentation of the Royal Gold Medal to Sir John James Burnet, A.R.A., R.S.A. [F.]

Having been invested with the Medal, Sir John Burnet expressed his thanks for the honour conferred upon him and delivered a brief Address.

Monsieur J. Godefroy (S.A.D.G.), Vice-President of the Franco-British Union of Architects, and Monsieur G. Legros, President of the Société des Architectes Diplômés par le Gouvernement, also spoke.

The proceedings closed at 9.30 p.m.



ST. MARY'S, STEBBING. CHANCEL ARCH-SCREEN

Three Chancel Arch-Screens

Trondhjem Cathedral, Norway; Stebbing Church, Essex; Great Bardfield Church, Essex

BY F. M. SIMPSON [F.]

OVER forty years ago, when on a sketching tour in the Eastern Counties, I measured up the interesting chancel arch-screens in the churches of Stebbing and Great Bardfield, Essex. I had quite forgotten my drawings until last year, when, as a member of the Commission appointed by the Norwegian Government to report on the various designs submitted for the restoration of Trondhjem Cathedral, I received photographs and documents illustrating the whole of the cathedral, as well as the points at issue. From them I discovered that at its east end was an arch-screen very similar in design to the screens in the Essex churches.*

So far as I am aware, these are the only mediæval

stone screens of this character in existence; and that one should be in Norway, in the most northern large church in Europe, with hundreds of miles of water between Trondhjem Fjord and the Essex coast, makes the resemblance between the three examples all the more striking and unexpected. For these reasons, I thought that a brief account, with illustrations of these screens, might interest some members of the Institute, although I am well aware that Gothic is now out of favour with both architects and laymen, and is regarded by the majority with much the same feelings as in the days of Addison, who, in one of his *Spectator* essays (No. 63), expressed the taste of the day and his own partiality by

known Norwegian writer—in his book entitled, “*Ad Quadratum.*” In this work Mr. Lund expounds at length his theory that all these buildings were designed in plan, elevation and section on the “square,” or “the double square,” or “the diagonal of the double square (63:26).” He extends his theory in some cases to the subdivisions of churches as well as to their main divisions.

* The Commission consisted of MM. P. Boeswillwald and Camille Enlart (France), M. Jules Brunfaut (Belgium), Mr. G. Gilbert Scott, R.A., and myself (England). The principal point for the Commission to report upon was whether or not Trondhjem Cathedral, as well as the majority of mediæval churches and cathedrals, had been designed in conformity with geometrical rules, as stated by Mr. Macody Lund—a well-

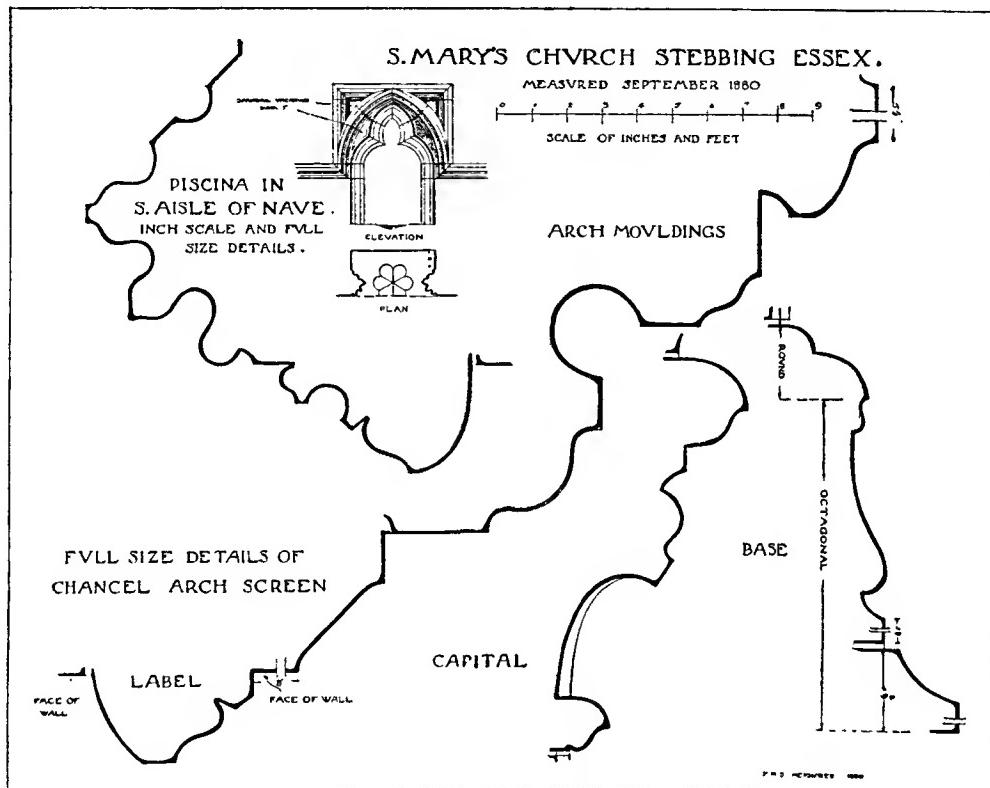
JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

describing the "Temple consecrated to the God of Dullness" as "a monstrous Fabrick built after the Gothick manner and covered with innumerable Devices in that barbarous kind of Sculpture."

To take the three examples in order : The Screen in St. Mary's, Stebbing, was undoubtedly designed and erected before the screen at Great Bardfield, and possibly supplied the idea for the screen at Trondhjem. When in Norway I said I placed it at c. 1300-1320. Since my return I have been in correspondence with

—the gables of the external buttresses ; the window at the east end of the south aisle, and the two windows on the south side of the chancel, the tracery of which has the slightly flamboyant lines characteristic of window tracery of the decades preceding the "Black Death" of 1349. On the other hand, the mouldings of the piscina, at the east end of the south aisle of the nave, suggest the thirteenth century rather than the fourteenth, so the existing church may well have been begun before 1324.

In 1880, when I took my measurements and made my



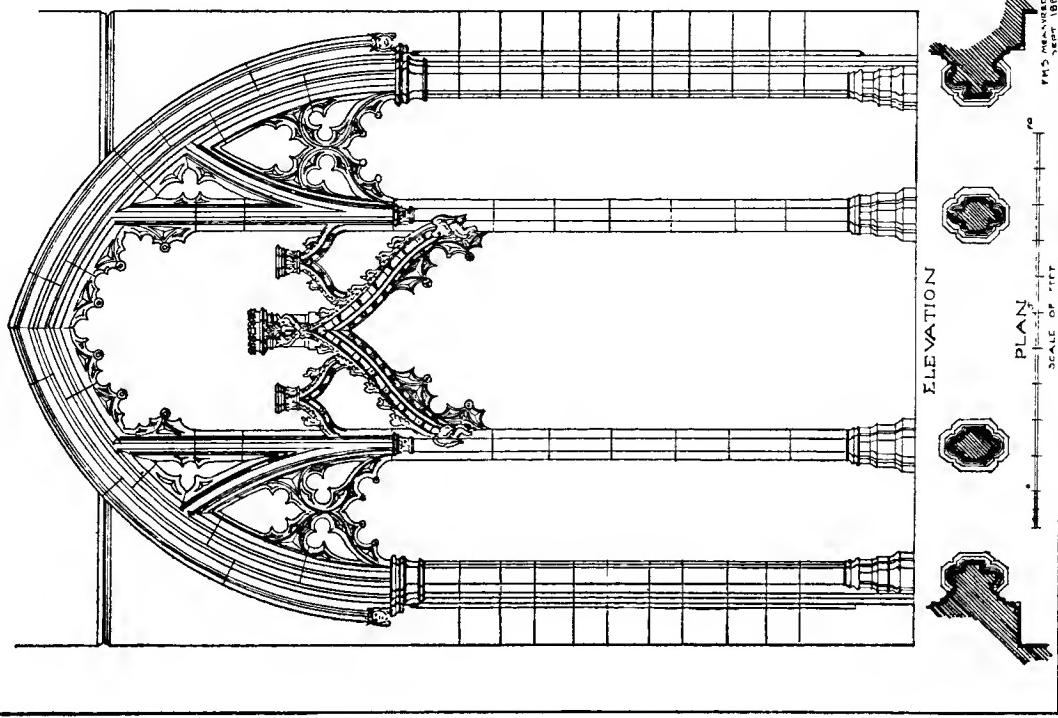
ST. MARY'S CHURCH, STEBBING, ESSEX

the Vicar of St. Mary's, the Rev. C. E. Livesey, who writes : "I have no record of the exact date of the church, but the first vicar was instituted in 1324." I do not think this date proves much. Prior to the fifteenth century priests who officiated in parish churches were not always "canonically instituted and inducted," and few records of their names exist. The "first vicar" may have had predecessors. The date 1324 is nevertheless worth noting, as "new brooms sweep clean," and this particular one may have been a man of energy and wishful to have a beautiful church. It receives confirmation, moreover, from other details of the building

drawings, the Stebbing screen was unrestored. Mr. Livesey writes that he believes the work of restoration was carried out in 1884, and he very kindly sends me a photograph of the screen as at present.

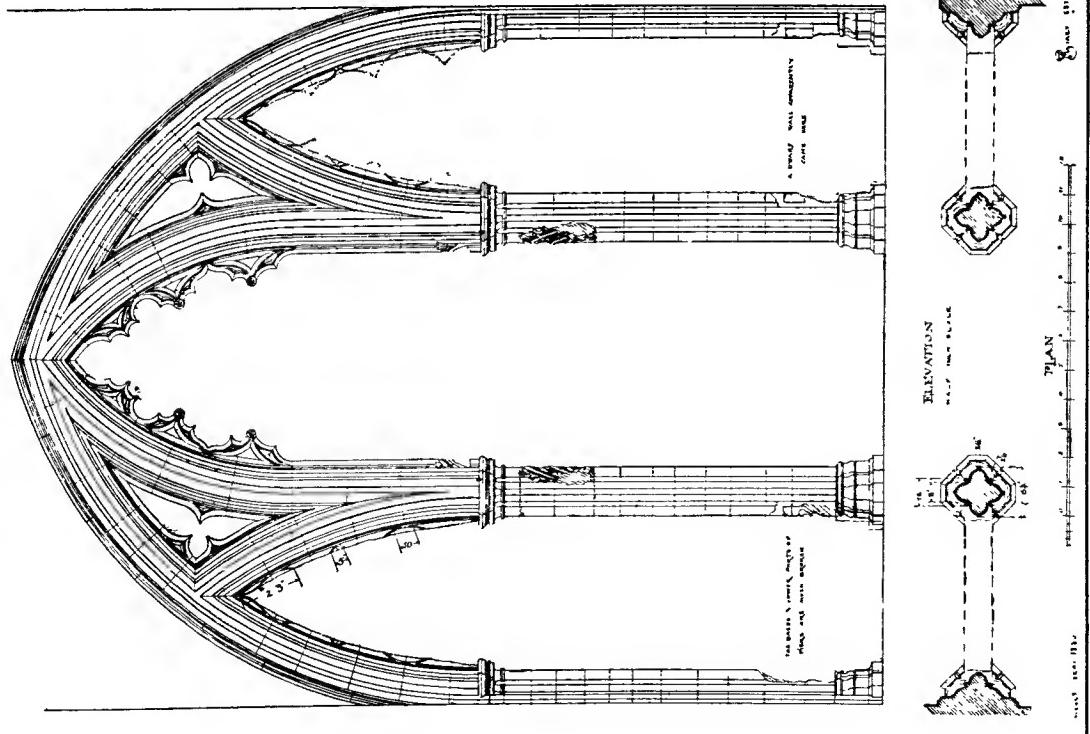
I am afraid the "restorer" made a bad job of it. I am confident that originally there was no tracery in the heads of the two side openings, but only cusplines similar to the cusplines at the top of the central opening. I measured carefully the points where the cusps were broken off, and a comparison of the photograph with my drawing shows the extent to which the restoration departs from the original design.

GREAT BARDFIELD CHURCH, ESSEX
CHANCEL ARCH-SCREEN



GREAT BARDFIELD CHURCH. CHANCEL ARCH-SCREEN

ST. MARY'S CH. STEBBING, ESSEX
CHANCEL ARCH-SCREEN.



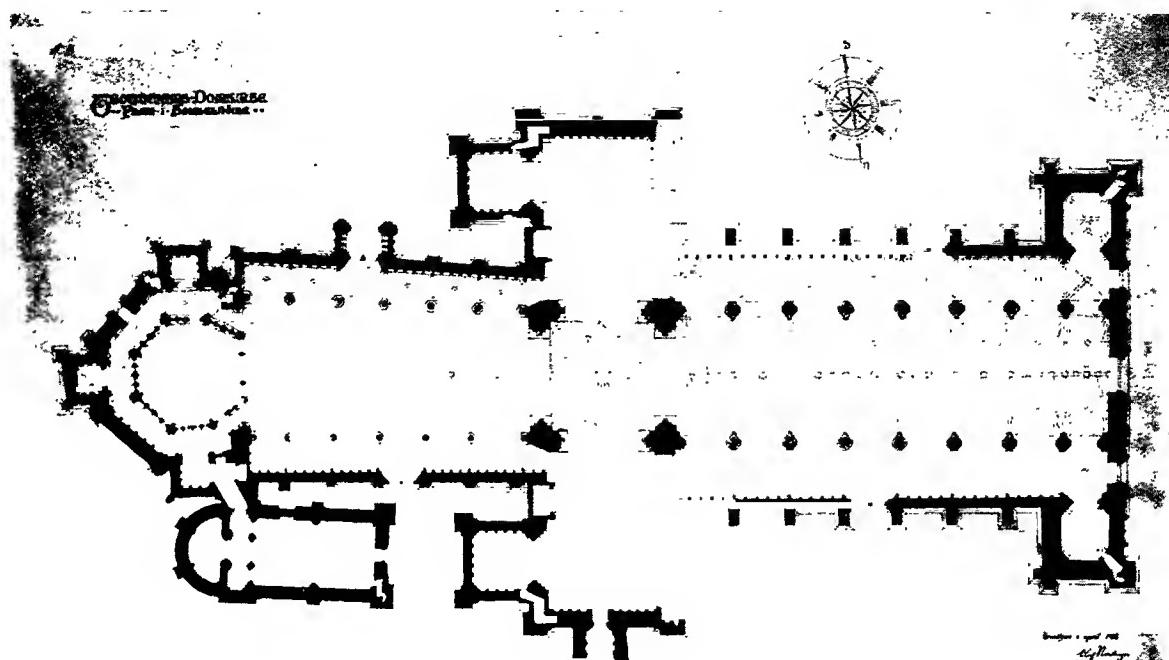
ST. MARY'S CHURCH, STEBBING, ESSEX. CHANCEL ARCH-SCREEN

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The Great Bardfield screen is later in date, possibly as much as 100 years. Its detail is inferior, although some of its carving is quite good. It is a corollary to the Stebbing screen. Its chief interest lies in the fact that it is in a good state of repair and its original design practically complete. The Rev. K. E. Cartwright, Vicar of Great Bardfield, has sent me the following particulars : "The screen did not require any restoration to speak of, but the whitewash was removed from it in the forties or fifties of the last century, and some small figures of angels were added or restored. The figures on the pedestals were restored in 1897 by G. F. Bodley." I remember no traces of the last.

In Trondhjem Cathedral the screen comes in the

This eastern end has undergone more than one restoration, and many alterations in detail have been made, not all at the same time. The original design is difficult to tell. The end in which the screen comes, for instance, is clearly not of one date. Possibly its only original portions are the two corner niches at the triforium level. The octagon beyond similarly shows work of different periods. The alterations and restorations were necessitated by fires, as was the case with so many mediæval churches. This is clear from the historical synopsis, by Mr. Johan Meyer, which forms the introduction to the pamphlet prepared by Professor Olaf Nordhagen (the architect responsible for the recent restorations) for the guidance of the "Commission."



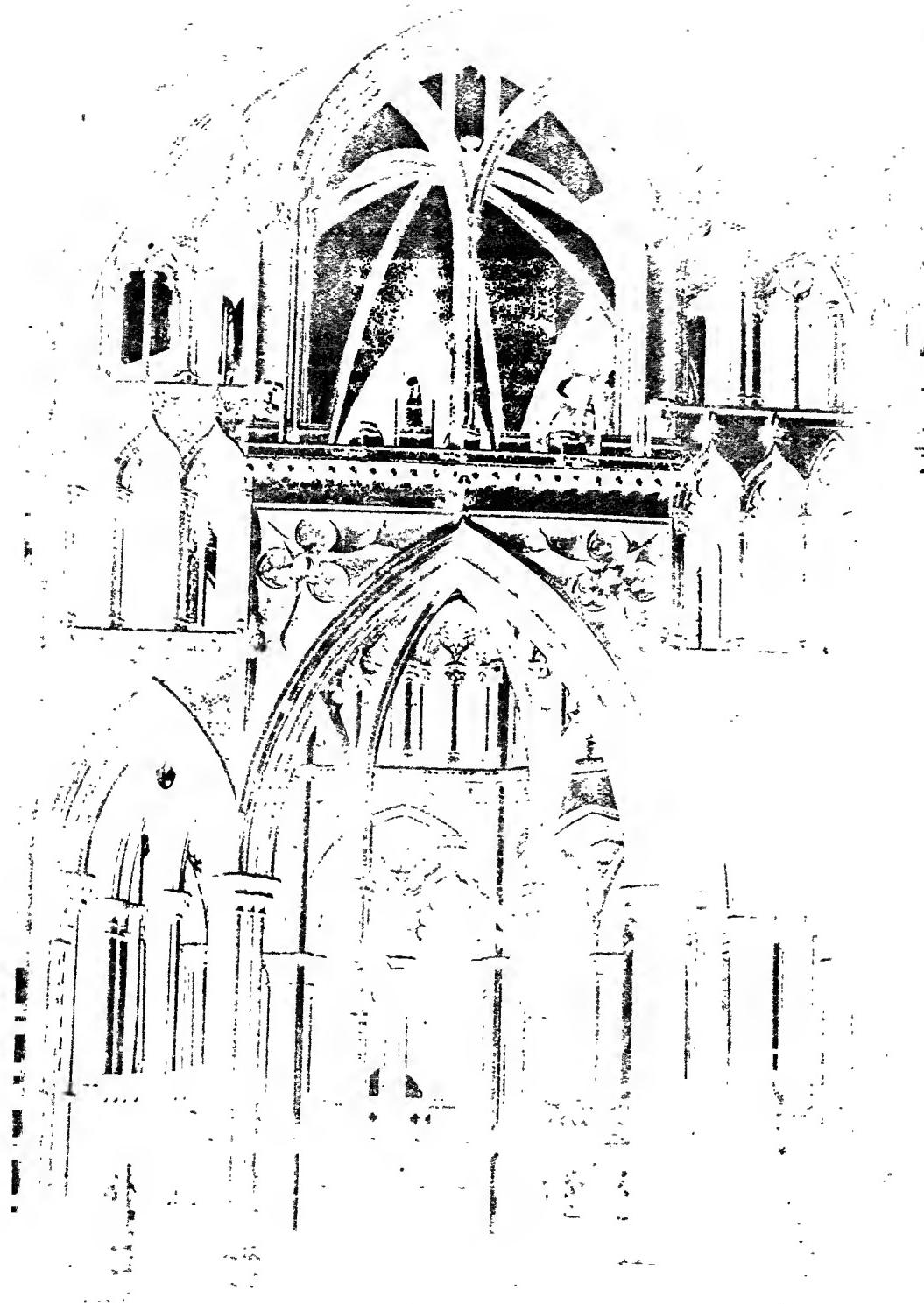
TRONDHJEM CATHEDRAL : PLAN

central wide bay of the three return bays of arcading, at the east end of the choir, and separates it from the original and beautiful octagon beyond. It forms merely a portion of an exceedingly rich front, and does not, as in the Essex examples, fill the entire width of the church.*

* Since the photograph was taken (1886) a great deal of rebuilding has been done, and the choir and nave, with their vaults, are now almost finished. Sculpture has also been added to this front, which increases greatly its richness. A figure has been placed in the niche at the apex, and figures in the two side niches of the upper part. The centre mullion of the latter is now a cross on which is the figure of Christ, and this is flanked by figures on the two corbels at this level. Figures have also been added above the capitals of the narrow piers of the screen below, and St. Olav now stands on the finial above the cusped arch in the centre.

Mr. Meyer states that the first fire occurred in 1328, and was followed by a still more destructive fire in 1432. He writes : "It may be taken for granted . . . that the Cathedral after the fire (1328) was completely restored to its former state," but that after 1432 "the restoration appears to have been confined to securing the octagon, the choir, and the transept, whereas the western wing was left to its fate with the vaults collapsed. In the east part of the church—particularly in the rood screen between the choir and the octagon, and in the triforium galleries of the latter—we meet with many traces of repair in the style of fifteenth-century Gothic with an emphatically English character."

English feeling is also noticeable in a good deal of the carving and detail of the previous centuries elsewhere



TRONDHJEM CATHEDRAL. EAST END OF CHOIR, IN 1886

in the church. Trondhjem Cathedral, however, is by no means merely a reflex of the Gothic architecture of England. It has distinct character of its own. Its builders were catholic in their tastes, and, besides exercising their own ingenuity, not above taking hints from other countries. Amongst much that is peculiarly and emphatically Norwegian, and very beautiful and original to boot, are details, that crop up unexpectedly in odd places and add to the interest of the church, which are reminiscent of the Saracens in Sicily and of buildings at the far end of the Mediterranean. The Norsemen were, and are, a race of sailors. Many, no doubt, accompanied Robert Guiscard in his successful expedition to Southern Italy in the eleventh century, and some may have ventured still farther east.

So far as I am aware, no definite record exists of what the east end of the choir was like before the fire in 1328. It must have been much plainer than at present. The corner triforium niches, already mentioned, apart from other evidence, alone prove this. Probably no screen filled the central bay. That may have been added soon after the fire, in which case it followed close on Stebbing. Its detail, however, suggests, if that hypothesis be correct, that restoration was necessary after the 1432 fire. Or it may have been entirely a happy addition of the fifteenth-century restorers. One would like to think—but this is surmise—that either at one period or the other English craftsmen lent a hand in the good work, and crossed the seas to help their cousins in Norway in the restoration of this great church.

Batalha, the Battle Abbey of Portugal

BY G. A. T. MIDDLETON [A.]

The monastery of S. Maria da Victoria, commonly known as Batalha, is the Battle Abbey of Portugal, and incidentally is, with its church, the finest building in that country, and one of the most significant in Europe. In 1386 the battle of Aljubarrota was won by a handful of Portuguese over an army of Spaniards; and the monastery was commenced in the following year to commemorate the victory, and carried forward rapidly to completion as a home for Dominican friars. Additions on a considerable scale were made at a later date, but the great church and the eastern cloisters and attached buildings constitute a complete entity of the latter part of the fourteenth century—a time when England and France were not building, owing to the after-effects of the Black Death of 1349 and to the Hundred Years' War, which was then proceeding.

It stands alone, or almost so, amid beautiful surroundings, some miles from the nearest town, and when first seen there appears to be something lacking to the eyes of one accustomed to the great churches of more northern Europe. There is no commanding tower or spire and no visible roof, the reason for this being that the roof, both of nave, aisles and the later cloisters, is formed of stone slabs resting directly upon the vaulting. This affects, if it does not dominate, the whole exterior treatment, and also, to some extent, the interior of the church. There is no gable to the west front, for instance, nor half gables to the west ends of the aisles, the eaves parapets being continued horizontally; and the cusped and traceried flying buttresses are fully exposed and the pinnacles stand out sharply against the sky. The aspiring tendency of northern Gothic is marred, for there is no logical continuity of the sloping lines of the flying buttresses—no

high-pitched roof which they aesthetically lead up to and appear to support.

Internally the use of flat roofs has also had its effect. The aisles and nave arcade are not only lofty in themselves but proportionately more so than usual to the total height, for there is no triforium; there is no aisle roof space to be masked, nor is a passage-way for access to various parts necessary, as such is provided by the flat aisle roofs. The sills of the clerestory windows are consequently not far from the top of the arches of the nave arcade, and with these windows, in addition to tall windows in the aisles, the church is well lighted—but not unduly, for the nave piers are extremely massive, and, being set diamond-wise on plan, appear to be even more so than they are. The general effect is solemn without undue heaviness, while in detail the piers show every recognised characteristic of English influence, even to the delicate chamfer stops displayed by the light falling upon them from the clerestory windows.

The apse windows, at first sight, also suggest an English origin in their tall lancet outline, but the resemblance is more apparent than real, the lights being mostly filled with a network of fine tracery, not in the heads only but all the way up, after the fashion of Moorish lattice work. Elsewhere the windows are all traceried, in a flowing geometric type of design, reaching out towards, but never achieving, the "flamboyant" of France, and again rarely confined to the heads of the arches.

The vaulting is quadripartite, with ridge ribs in both directions, and with bosses at the intersections. This has undergone careful restoration, but several of the original bosses have been stored in a



FIG. 1. FOUNDER'S CHAPEL, BATALHA (CENTRAL TOMB: DOM JOÃO I
AND D. PHILIPPA, SISTER OF EDWARD III OF ENGLAND)

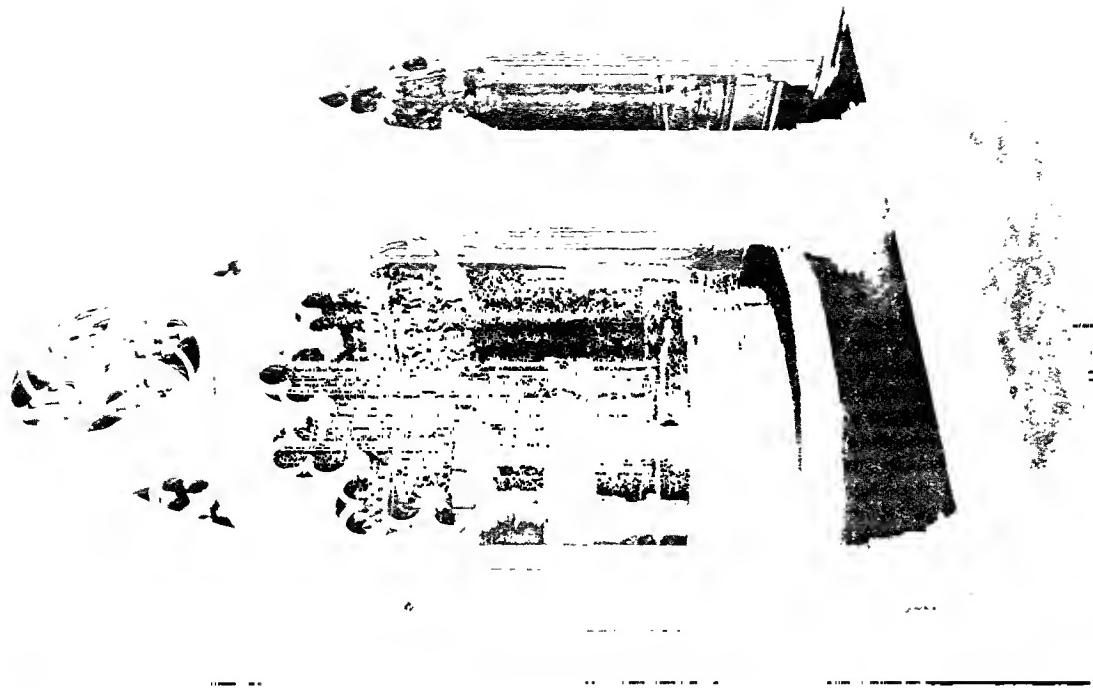


FIG. 2. FOUNTAIN IN THE GREAT CLOISTERS, BATALHA

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Refectory, now used as a museum of fragments—and are of extraordinary beauty and perfection of workmanship. Each represents, in conventional form, some type of fully developed summer foliage, passing into the autumnal, in agreement with the universal law of the evolution of Gothic ornament; but few examples are to be found anywhere of such perfection as these, pierced and undercut and yet by no means fragile.

Of the simple font where the quietude serves as a foil to the elaboration of the bosses, nothing seems to be known, but it has all the appearance of having belonged to a much earlier church, dating back to the twelfth century at least; while the consoles, with their lion's head enrichments, are as evidently of comparatively recent date.

A large chapel, containing the founder's tomb and of the same date as the main body of the church, opens out of the south aisle, near the west end. Its plan is unusual, rendered possible by the use of flat roofs, for the central space, lighted by a clerestory, is octagonal, while the surrounding ambulatory is square. The stilted arches of the ambulatory arcade are richly cusped. Without the cusps they would possibly have looked awkward; as it is they are rich to an exactly suitable extent to form a framework to the elaborately carved tombs which are ranged along the ambulatory walls. These differ slightly from one another while adhering to the same general design; but none is equal to the simple altar tomb of the founder himself, Dom João I, and his wife Philippa (sister of King Edward III of England), which occupies the centre of the octagon. It rests upon lions' backs, and is itself perfectly plain except for its inscription, but has a small cornice of fine foliage carving and good lettering, and carries recumbent effigies. The feet rest against vertically placed corbels of summer foliage carving, of equal beauty to that of the bosses above mentioned, and each head is crowned and covered with a canopy of extreme delicacy. The placing of this tomb, its own dignified simplicity combined with delicacy of ornament, and the way in which its setting is contrived to enhance its qualities without competing with them, is worthy of the closest study, both generally and in detail. (Fig. 1.)

Even the gates, though not added till the seventeenth century and in an entirely different style, contribute to the effect, for they are rectangular and formal, and black in colour—the framework of timber covered with sheet iron relieved by pierced brass plates, and the filling of slender turned ballusters arranged in panels.

The fourteenth century cloisters are of the very simplest character, enclosing a garth which is laid out as a flower garden with fountains; but an upper storey has been added at a much later date of Renaissance character and light design, roofed with tiles. The contrast is sharp but not unpleasing, the deep shadow

under the eaves being well broken by the use of flower urns between the widely spaced and slender Doric columns.

These, however, are now minor cloisters only. Others of much greater extent and magnificence were built in the early years of the sixteenth century under D. Manoël, in the peculiarly Portuguese type of Gothic to which his name has been given. A logical development from the fourteenth century work of the great church, it differs wholly from the contemporaneous "flamboyant" of France and the "late perpendicular" of England, and may perhaps be best described as "rococo Gothic," with here and there an admixture of Moorish influence, and even of Hindu, owing to Portuguese pride in the discovery of the sea route to India by Vasco de Gama.

Tracery and ornament are much more affected than structure or mouldings. Vaulting generally remained quadripartite, with ridge ribs and horizontally coursed filling as in France. There are occasional examples of further elaboration, but nothing approaching the English fan vault is to be found, development, if any, being along French rather than English lines. On the other hand, the mouldings are English in almost all respects, but English of a somewhat earlier date. The extremely sharp and eccentrically placed bowtels of the French "flamboyant" never occur, nor is there much interpenetration, though it is not unknown. As a rule, construction dominates and ornament is subservient; yet when it is introduced it is of unexampled richness, even to complexity, arranged in masses between plain wall surfaces; and then the exuberance of the carver will occasionally overpower the constructional sense of the mason.

Pure tracery is rare. Where it occurs, as in the arches through which the fountain is reached from the great cloister, the construction is geometrical and overpoweringly strong, while the minor filling is "flamboyant." Cusping is used to excess, and the main points are enriched with exaggerated, straggling leaves.

More frequently, tracery is replaced by florid, intertwining foliage of late autumnal or even wintry character. The vine forms the usual motive, with twisted stems and occasional leaves, and sometimes short stumps as if to indicate that the grape bunches have been cut. Many of the unglazed windows of the great cloister are thus enriched, and so are those of the fountain porch in one corner; a fountain being an essential adjunct to a cloister in a hot country.

The fountain itself, more simple than its setting, hardly conforms to any recognised style. Executed in white marble, it is a gem of perfect beauty—Portuguese art at its best, and the equal of anything of its kind even in Italy. (Fig. 2.)

In popular estimation the "Unfinished Chapel" is the chief glory of Batalha, if not indeed of all Portuguese

THE BATTLE ABBEY OF PORTUGAL

architecture. Added at the extreme east end by D. Manoël, it bears the same relation to the church that Henry VII.'s chapel does to Westminster Abbey, and it was built but little later. There is this difference, however—it was never completed, never even roofed, and never definitely connected to the church by door or direct passage, being separated from the apse by a vestibule reached only from outside.

wonderful is the workmanship, so delicate the design—every leaf a perfect gem. Yet, in spite of its profusion, each part is kept in harmonious subservience to the whole which it enriches ; and even the whole doorway is framed in a sufficiency of plain wall surface both to counteract and to display its extreme elaboration. On reflection, perhaps, the cultured architect may prefer the plainer arches to the chapel recesses, but at first



FIG. 3. ENTRANCE TO UNFINISHED CHAPEL, BATALHA, FROM THE VESTIBULE

And if the chapel is the chief glory of Batalha, it is the doorway by which it is entered from the vestibule which is the chief glory of the chapel—not in general outline, which is extravagantly complex and unconstructional, but in profusion of perfectly executed carving. Even to one who has seen the entrance to the Chapter House of Southwell Minster, as well as much that is best in France, it comes as a revelation, so

sight and in the bright Portuguese sunlight the effect is beautiful in the extreme, and one is carried away by it. (Fig. 3.)

In plan this, like the Founder's Chapel, is octagonal, but instead of being surrounded by a square ambulatory this has chapels opening out of it on all sides except that in which the entrance is placed. These are flat roofed as usual, and it was intended that there

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

should be clerestory windows close over the arches. A most elaborate foliage string and cresting was carried round the chapel at the sill level, with coats of arms at the angles, and the walling between the windows was commenced, and had reached uniform level, when the work was stopped—and it has never been continued. What remains of the clerestory exhibits the same profusion of ornament as the entrance doorway,

but the carving is of a stronger character, suitable to its position and to being observed at some distance from below, and, like the tracery in the cloisters, is mostly representative of the twisted vine stems and occasional vine leaves of late autumn, the cut stems of the grape bunches being particularly noticeable on the window joints, as also are the initials M. R. (*Manoël Rex*), constantly recurring. (Fig. 4.)

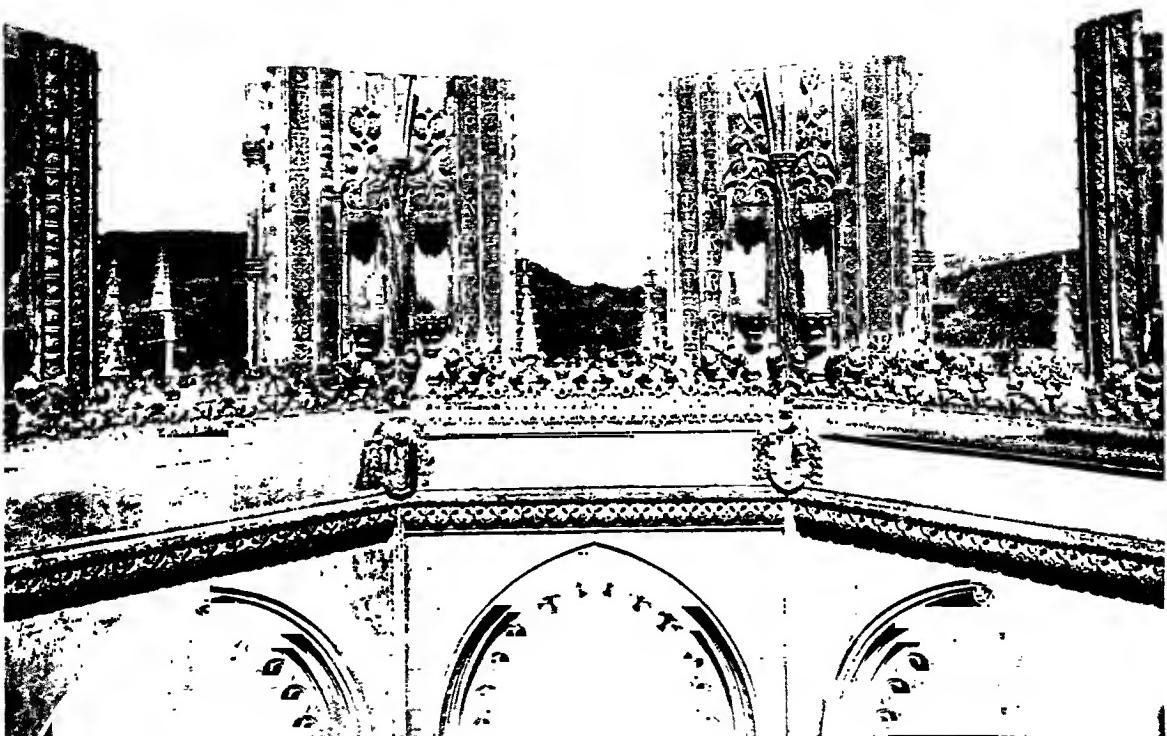


FIG. 4 CLERESTORY, UNFINISHED CHAPEL BATALHA

Modern Problems in Architecture*

BY PERCY MORRIS [F.R.I.B.A.], PRESIDENT OF THE DEVON AND EXETER ARCHITECTURAL SOCIETY

MY task is a difficult one for two reasons : firstly, because there unfortunately exists among architects a sharp cleavage of opinion upon matters of policy, which are best left undiscussed at the present time ; and secondly because our interests continue to be interwoven with issues which far outweigh what one may call the domestic affairs of our profession—I refer to that reflection of history which is falling across the path of the world's progress. Speaking broadly, history, like architecture, falls under three main periods—ancient, mediæval, and modern. The Teutonic tribes, who in the fifth century were responsible for the overthrow of the Western Roman Empire, unconsciously laid the foundation of the mediæval period—that groping through centuries of darkness and gradual emergence into the light. And the Turks, who in the fifteenth century compassed the downfall of the Eastern Roman Empire, were an instrument, among others, in bringing about the Renaissance, that wonderful swing back to ancient culture, which led to a sifting of old ideas, a new attitude of mind and freedom of thought. It is a curious coincidence that in this twentieth century the nation welded from those ancient Teutonic tribes, and the Turks, in combination, should have caused that civilisation to totter, which individually in former ages both of them had helped to set in motion. And as we watch the uneasy swaying which marks the effort to regain stable equilibrium, may we not ask whether future ages will not recognise in this the close of the period we now call modern, and the dawn of another period of which we cannot at present foresee the trend ? Will it be a lapse into barbarism followed again by centuries of groping towards the light and the gradual recovery of the wreck of present civilisation, or a steady advance, profiting by past experience—a balanced development of the ideal and the practical in partnership, in which the visions of the idealist will assume practical dimensions, and the horizon of the practical man expand to receive them ? These, I think, are the questions which exercise our minds to-day.

It is not at times such as these that we must look for quick recovery or rapid development in building. It is true that amid the unending strife of Guelph and Ghibelline there existed in Florence during the fifteenth century a quiet backwater where the Arts of Peace—painting, sculpture, architecture—flourished with amazing vigour, not because of, but in spite of faction. You may remember how Michael Angelo,

chisel in hand, directed the fortification of the city shortly before its siege by the Medici, snatching at intervals a few brief moments to return to his sculpture. But, unlike literature, which, as Macaulay points out, has flourished in times of political convulsion, the great periods of the world's building have been in times of peace—in Athens in the Periclean Age, in Rome in the Augustan Age.

But there is undoubtedly in some quarters a quickening interest in Architecture, as distinct from its archaeological aspect or the mere romance of association. This is marked, among other signs, by greater discrimination in the Press and by better informed criticism ; but even more interesting to the observer is the accumulating evidence that it is not an economic proposition to consider a building solely from the utilitarian standpoint, which is the prevalent attitude. The Americans have discovered this, and an increasing number of buildings erected in this country show that it is becoming recognised here. There is no doubt that environment—and by environment I mean not only the setting of a building, but form, colour, repose, and fitness—exercises psychologically far more influence than is generally admitted. If this is true of the busy mart and factory, it should be possible to prove beneficial effect in such buildings as schools and hospitals, and, as a corollary, financial gain, which remains the only potent argument. The striking work of the Industrial Research Committee, with regard to fatigue and kindred subjects, adds confirmation to my conjecture. Nothing is farther from my thoughts than the suggestion of lavish expenditure or ostentation : all I mean is the humanising touch. I happened a few months since to go over a factory, where in a fetid atmosphere, in a room with bare whitewashed walls with windows closely shut and obscured, some women were occupied in a process of manufacture which required no effort of skill or mind, but merely the pulling of a lever. Think of the effect of being occupied daily, for perhaps 20 or 30 years, at such a task in such surroundings. It is futile to clear slum areas and the breeding grounds of Bolshevism, if Bolshevism continues to be fed with both hands by such means.

But the most marked features of the times are the general flux of old ideas working in the grooves worn by controversy, and the impetus given by recent events to many branches of our work. To mention only a few of these : The revolution in the system of training architects, due to the educational facilities offered by the universities and the architectural schools ; the rapid development of town and regional planning; the change

* From Mr. Morris's Presidential Address at the Annual Meeting of the Devon and Exeter Architectural Society on 30 June.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

of attitude towards the care of ancient buildings, of which the work at Westminster Hall and Tintern Abbey are fine examples of scientific deduction, and the saving of the Whitgift Hospital a testimony of public interest ; the reduction to formulæ of the principles of acoustics as applied to buildings, in which the Americans again led the way ; the theory of ventilation turned inside out ; a change of ideas on important aspects of sanitation. As we struggle to keep abreast of the tide, we realise that it is essentially a time to suspend hasty judgment ; nevertheless we are driven to the conclusion that our knowledge is relative. It is not that underlying principles are changing, but our conception of them is constantly changing in the light of fuller knowledge. It has been said that "human life—mental and social—proceeds in no direct undeviating line, but by a series of advances and retreats, of attractions and repulsions." It is so with us. Our work is not like an exact science which can be carried forward in stages helped by crucial tests, which prove or disprove theories and to that extent clear the ground—as the Ptolemaic theory gave place to the Copernican system ; or the corpuscular theory of light was supplanted by the wave theory owing to the discoveries of Rosener and Foucault. Even our calculations are approximations into which enter unknown factors material and human, so that there is not even a fixed line between safety and danger—we can only determine limits within which the line should fall. Advance therefore involves trial and error, elimination and addition. Herein I think lies progress.

The housing problem still awaits solution, but I can only speak of it as an onlooker ; being the blushing exception to the rule that every man now carries an infallible remedy in each pocket. We are apt to regard it as a question particularly affecting this country, losing sight of the fact that the need of houses is worldwide. Nor is the problem the product of our own age, although the recognition of it may not have affected the civic conscience of past ages with that insistence which now demands action. Athens, when at the pinnacle of her fame in literature and art, despite the magnificence of her public buildings, was otherwise a city of mean one-storey dwellings set in narrow, winding streets—unpaved, unlighted, with an insufficient water supply and unspeakably filthy. Augustan Rome was in much the same plight. In the residential quarters of the city similar narrow streets prevailed with houses overhanging and carried up several storeys. "The Romans, by thus multiplying the number of the storeys of their houses, are commodiously lodged," says Vitruvius, but Juvenal tells a different tale. "But the city we live in consists largely of the flimsy props that shore it up. For the house agent keeps our houses from toppling over, and when he has covered up an old

gaping crack he bids us sleep in peace even although collapse be imminent."

At times like the present it is interesting to recall how the City of London faced her housing difficulties after the Great Fire in 1666. The country was recovering from the devastation caused by the Great Plague. The National Exchequer was depleted, as the diaries of Pepys and Evelyn bear frequent testimony. Owners of property had no means to rebuild. Labour was scarce, and the City Guilds resented the importation of outside help. Materials rose rapidly in price, and difficulties of supply and distribution complicated a desperate situation. By a short Rebuilding Act a Court of Fire Judges was set up with power to settle all disputes between landlord and tenant, to cancel agreements and substitute others, and to extend leases. Mr. Walter Bell, whose book is the standard work on the subject, says of this Act that it was "the negation of all law" ; the object being to find out whether the landlord or tenant was in the better position to build quickly. The old guild law was swept away, and with it went the tradition of centuries. The prices of materials and transport and, when necessary, the rates of wages, were fixed by the judges, and any man refusing to work for the wages assessed was imprisoned or fined. The expenditure on houses alone has been estimated at £12,000,000 in current value, but the sole financial assistance given through Parliament was from the coal dues, which down to Midsummer day 1670 had yielded £32,630 only. We must also remember that funds for rebuilding St. Paul's Cathedral, the City churches, and numerous halls for the Craft Guilds had to be found concurrently. It speaks volumes for the impartiality of the judges and the common sense of the people that the results gave widespread approval.

The problem of our day is far greater in degree if less intense in its local incidence. The City of London proved that in an atmosphere of goodwill building responds to intensive culture. But, equally, the failure of our recent national efforts showed that conditions are now favourable to those parasitic growths which have fastened upon and threaten to strangle British industry. We are told that the task was impossible. I do not believe it. That was the spirit against which Brunelleschi had to contend, which, had it prevailed, would have robbed Florence of her dome—the spirit which would have left the Panama Canal at the stage where de Lesseps abandoned it. What I think the failure proved conclusively is that the highest use of the advance of human possibilities postulates a parallel advance on the part of human nature.

One aspect of the housing question is apt to be overlooked : I refer to those vast slum areas awaiting clearance and to the fact that many rural cottages are unfit for habitation. In the case of machinery, it is

THE SITE OF THE GLOBE PLAYHOUSE

recognised that its useful life is for a specified term of years, and foresight prompts the allocation of a sinking fund for renewal. Sooner or later we shall have to realise that, regarded as an investment, there is a term beyond which no building can be expected to yield a profitable return. It is an anomaly which allows the continued use of houses which are a menace to health and forbids the sale of diseased animals for food. But although from the ethical side the arguments could be made unanswerable, they are at present qualified not only by economic and industrial conditions which cannot be adjusted rapidly, but by the pressing need of accommodation ; and there is the real danger that

mistimed action may do disservice by fostering reaction. I think it was Lecky who observed that "opinion depends less on the force of its arguments than on the predisposition of society," and common sense tells us that more progress will be made in the long run by timely palliatives than by ineffective remedies. Nevertheless, it is the time for a constructive policy so that at the back of these palliatives there may be considered measures which by sustained effort spread over a term of years—and it must be lengthy—will focus upon the ultimate object in view, and that object is to ensure a stable foundation for the superstructure of posterity.

The Site of the Globe Playhouse *

BY A. W. S. CROSS [F.J., M.A. Cantab.

IN December 1598 Cuthbert and Richard Burbage, the lessees of The Theatre at Shoreditch, demolished that structure and transported the building materials to some land on the south side of the Thames which they and their companions, Shakespeare, Hemyngs, Phillips, Pope and Kempe, were about to acquire. On this site, which adjoined a lane then known as Maid or Maiden Lane (now Park Street), Southwark, the Burbages and their associates proceeded to erect a new playhouse, called The Globe, which afterwards became the most famous of all theatres. Opened before the end of the year 1599 for the production of Ben Jonson's play *Every Man Out of His Humour*, this playhouse was burned to the ground on 29 June 1613, and rebuilt, on the same site, in the following year. The lease granted in 1599 to the Burbages and other members of The Globe company, which in the ordinary course of events would have terminated in 1629, was extended to 1644, when The Globe was pulled down and its site covered with buildings. And, as Mr. Hubbard reminds us, during the centuries that have passed since The Globe was finally demolished the surrounding property has been destroyed, the ownerships of the sites transferred, and such documents relative to the transactions that still remain are, only too frequently, neglected or forgotten. Consequently there has been, for many years past, much controversy with regard to the actual site of the playhouse ; the question at issue being whether it was to the north or to the south of Maiden Lane.

Thus the problem might have remained unsolved had it not been for the fortunate discovery, in 1909, by Dr. C. W. Wallace, of Nebraska University, of a document in the Public Record Office (Coram Rege 1454, 13 Jas. I. Hil. M. 692) of the pleadings in the case of a dispute between Thomasina Osteler and her father John Hemyngs, who was one of the lessees of The Globe site and joint editor, with Henry Cundell, of the famous 1623 Folio of Shakespeare's works.

To enable the complainant to establish her case it was necessary to recite, from the original lease then extant,

particulars with regard to the shares she claimed in The Globe and Blackfriars theatres. Thus it came about that, *inter alia*, the Osteler complaint defines the boundaries of the land leased by Nicholas Brend in 1598–1599 to Cuthbert and Richard Burbage, William Shakespeare, John Hemyngs, Augustine Phillips, Thomas Pope and William Kempe, as follows :—

" That whereas one Nicholas Brend of West Moulsey in the County of Surrey . . . by his indenture bearing date the 21st day of Feb. 1599 . . . did demise grant and to farm let to those certain men Cuthbert Burbage and Richard Burbage . . . to William Shakespeare and to Augustine Phillips and Thomas Pope . . . to the aforesaid John Hemyngs and to William Kempe . . . all that parcel of ground . . . in the tenure and occupation of Thomas Burt and Isbryand Morris diers and of Lactantius Roper salter . . . containing in length from east to west two hundred and twenty feet of assize or thereabouts, lying and adjoining upon a way or lane there on one side and abutting on a piece of land called The Park upon the north and upon a garden then or recently in the tenure or occupation of one John Cornishe towards the west and upon another garden then or recently in the tenure or occupation of one John Knowles towards the east . . . situate lying and being within the parish of Saint Saviour in Southwark in the County of Surrey."

That the land thus leased by Brend to the Burbages and others was divided into two parcels or lots by a (then unnamed) way or lane is shown in the concluding portion of the extract from the lease, which reads as follows : " And also all that parcel of land just recently before enclosed and made into three separate plots whereof two of the same [were] recently in tenure or occupation of one John Roberts carpenter and another recently in the occupation of one Thomas Ditcher . . . situate lying and being in the parish aforesaid in the foresaid County of Surrey containing in length from east to west by estimation one hundred and fifty-six feet of assize or thereabouts and in breadth from north to south one hundred feet of assize by estimation lying and adjoining upon the other side of the way or lane aforesaid and abutting upon a

* *The Site of the Globe Playhouse*. By George Hubbard, F.S.A. (Cambridge University Press.) 7s. 6d. net.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

garden there then or recently just before in the occupation of William Sellers towards the east and upon one other garden there then or recently just before in the tenure of John Burgram, sadler towards the west and upon a lane there, called Maiden Lane towards the south."

A plan of the land leased by Brend to the Burbages and others was prepared by the author of the book under review in accordance with the particulars given in the above extract from the lease of 1599. It is not claimed that the garden plots on the north side of the way or lane are correctly placed on the plan. But in reference to the three garden plots on the south side of the way or lane Mr. Hubbard writes as follows : " It is a curious fact that boundaries to parcels of land have a remarkable power of endurance. Thus the depth of the three plots on the south side of the way or lane is given as 100 feet. This distance coincides with the long straight boundary running east and west between the properties now fronting upon Bankside on the north and those fronting on Park Street on the south. Therefore, in all probability, it was the southern side of the way or lane."

As shown upon the plan, the divisions of the gardens generally are in conformity with the divisional walls of the existing properties. But, in considering the conjectural position of the three gardens fronting on Maiden Lane, Mr. Hubbard has been influenced by the fact that, in 1635-36, Sir Matthew Brend sold some land to a certain Hillarie Memprise, which had its eastern boundary in Deadman's Place, and a frontage of 270 feet on the north side of Maiden Lane. " If this represented the whole of Brend's property fronting upon the north side of Maiden Lane the probability is that the western end of his land was the western end of the three gardens mentioned in the lease from Brend to the Burbages and others." I am fully in accord with Mr. Hubbard that, if the extract from the original lease is accurate, " the whole of this property, on some portion of which The Globe was built, was situated to the north of Maiden Lane"; and, further, that the approach to the playhouse was either by the way or lane—which formed the division between the two pieces of land described in the original lease—or from Maiden Lane on the south side.

" This way or lane plays an important part in the history of The Globe," and, as the plan shows, it formed the only approach to the four gardens " recently in the occupation of Thomas Burt and Isbrand Morris diers and of Lactantius Roper salter."

Although the Osteler document proves, quite conclusively, that the site of the playhouse was north of Maiden Lane, yet so far there is no evidence as to the exact position it occupied on the land leased by Brend to the Burbages and others. Certain topographical details, however, are of considerable assistance. For instance, Strype in his edition of Stow's Survey (1720) tells us that Maiden Lane was " a long straggling place with ditches on each side the passage to the houses being built over little bridges with little garden plots before them especially on the north side which is best for houses and inhabitants."

In order to deal efficiently with the water-logged land in Southwark and elsewhere on the banks of the Thames,

which must have been repeatedly flooded by the spring tides of the river, the Surrey and Kent Commission of Sewers had been instituted, under the Act of Henry VIII, in the year 1514-15, and, as Dr. Wallace pointed out in a letter to *The Times* of 30 April 1914, it is recorded that on 14 February 1605 the Sewer Commission made the following minute : " It is ordered that Burbage and Hemyngs and the other owners of the playhouse called the Globe in Maid Lane shall . . . pull up and take cleane out of the sewer the props and posts which stand under their bridge on the north side of Mayd Lane." And it would be difficult to find stronger cross-evidence to support Mr. Hubbard's case that the Globe playhouse stood on the north side of Maiden Lane.

In my opinion there can be no doubt whatever that, as Mr. Hubbard asserts, this contemporary evidence obtained from quite independent sources is in itself conclusive as to the main point at issue—namely, whether The Globe was on the north or to the south of Maiden Lane.

But, as further supplementary evidence, the case of William Sellers is quoted, as follows : " On the 5th Dec: 1595, that is four years before the lease was granted by Nicholas Brend to the brothers Burbage, Shakespeare, and others, the Sewer Commissioners ordered John Wardcn and Willm: Sellers and all the land-holders or their tenants that holde anie landes gardeins ground or tenements abutting upon the common sewer leading from Sellers' gardein to the beare gardein to cast, clese, and scowre, etc."

Now, as the Bear Garden was on the north side of Maiden Lane, it is surely fair to assume with Mr. Hubbard that Sellers' land was also on the north side. Otherwise it would have drained into the sewer on the south side of Maiden Lane, which, according to Strype, had ditches (or sewers) on each side north and south of the roadway—and not into the sewer draining the land upon which the Bear Garden was placed. This evidence that Sellers' land was on the north side is confirmed by the fact that it is described in the Osteler deed as adjoining the land granted in the original lease. And, as it adjoined and formed the east boundary of the southern portion of The Globe site, it is obvious that both garden and playhouse were on the north side of Maiden Lane.

But the evidence that The Globe stood to the north of Maiden Lane does not rest solely on the testimony of manuscript documents. There are also numerous " map-views " which " tell us graphically exactly what the deeds tell us literally." In many of these old views of London the principal buildings of Southwark are clearly depicted, and in numerous instances the artist has inscribed the names of the various structures thus illustrated. Reproductions of sixteenth and seventeenth century map-views—in addition to some plans of Southwark, made at a later date, which are very conveniently incorporated with the book in portfolio form—add considerably to the value and interest of Mr. Hubbard's able explanatory comments. Plate 1, after Hoefnagel's View of London, 1572, pictures Southwark before The Globe was built. Its features of interest comprise two circular buildings, that on the left being described as " The Bowll baytyng," and that on the right as " The Beare baytyng." And, as Mr. Hubbard

has shown, the future Globe playhouse stood on the exact site of this Bear-baiting ring. East of the Bear-baiting ring a well-defined road has two parallel lines drawn down the centre which are crossed, at intervals, by short parallel lines. The longitudinal parallel lines indicate an open ditch or sewer and the short transverse lines the bridges over the sewer. This roadway, which was formerly known as Deadman's Place, is known to-day as Bank End. A short way or lane connects Deadman's Place with the Bear-baiting ring. "The main point, however, of Hoefnagel's view is that there are two parallel lines with a hedge on the northern side at the southern end of the gardens belonging to the Bull and Bear-baiting rings and to the garden between them. These parallel lines are intended to show a common sewer and the direction taken by the sewer corresponds with that afterwards taken by Maiden Lane." In all probability this sewer is the northern one of the two sewers in Maiden Lane alluded to by Strype. The open space to the south of the sewer is the Park of the Lord Bishop of Winchester. In Plate 2, Agas's View of London (*circa* 1560-70), both the northern sewer of Maiden Lane and the Bishop's Park are too far south to be in the picture. "The Bolle bayting" and "The Beare bayting" rings with their surrounding gardens closely follow Hoefnagel's picture, and the same way or lane leading out of Deadman's Place is shown by both artists. On comparing Plate 3, which is a reproduction of Norden's Map of London (1593), with Hoefnagel's View (Plate 1), it is apparent that Maiden Lane has been extended to Deadman's Place, and both the northern and southern ditches or sewers are shown. In both views the northern sewer forms the southern boundary of the gardens of the Bull and Bear baiting rings. In Norden's view the Bear-baiting ring that was clearly shown by both Hoefnagel and Agas has disappeared and the bear-baiting appears to be carried on in the old Bull-baiting ring. A portion of Visscher's View of London (1616) is also reproduced (Plate 4). The Globe occupies a central position in this picture, and its site absolutely coincides with that of the "Beare bayting" ring of Hoefnagel's and Agas's Views. And the way or lane leading out of Deadman's Place reappears and now seems to give access to the playhouse. The whole of the above contemporary evidence is invaluable in assisting to locate the exact site of The Globe, which, thanks to the conscientious and exhaustive researches of Dr. Wallace and other Shakespearean enthusiasts, including the author of the work under review, has now been successfully accomplished.

Written, primarily, with the object of preserving for future generations the testimony of sixteenth-century witnesses and the contemporary records resulting from the above-mentioned researches, Mr. Hubbard's scholarly monograph on the site of the Globe Playhouse is in every way worthy of its author's distinguished professional attainments and of his sound antiquarian knowledge. And as the conclusions arrived at appear to be unassailable, it is to be hoped that the memorial tablet erected on the south side of Park Street by the Shakespeare Reading Society will be removed and refixed on the north side of that street, where The Globe undoubtedly stood.

Reviews

EGYPTIAN ART : INTRODUCTORY STUDIES.

By Professor Jean Capart. Translated by Warren R. Dawson. 16s. net. [George Allen and Unwin, Ltd., Ruskin House, 40, Museum Street, W.C.1.]

This book, as the preface informs the reader, is a translation from the French of the introductory chapters of an important treatise on Egyptian Art by the well-known Belgian professor and Egyptologist under whose name it appears. Its character is appropriate to its original purpose, but hardly justifies its publication as a separate work. It may be described as a systematic general survey of the subject ; to which is added an adequate bibliography. Though the book is called *Introductory Studies* it appears to be especially designed to puzzle the novice, who will make little of the letterpress without the illustrations constantly referred to. Most of those illustrations are not to be found in the book itself, but in other books referred to by their numbers in the lists appended to the successive chapters : and the novice is not likely to have a whole Egyptological library beside him. Even the illustrations that there are in the book are not easily found when wanted. They are unnumbered, and very few are on, or anywhere near, the pages on which they are mentioned. The plates are in bunches at intervals—presumably where the binder found it convenient to put them ; and in the list of them there is no indication of their position, but only of the pages on which they are mentioned ! The whole arrangement for illustrating a work which must obviously be largely dependent on illustrations is absurdly unsatisfactory.

A reader already tolerably familiar with the subject, and more or less with the principal examples quoted, may, however, find it both interesting and useful, especially if his information is of the scattered and unsorted kind picked up from works on the political history of the country. For it deals in a systematic way with every aspect of Egyptian art in turn ; its manifestations, forms, methods, ideas, conventions, and so forth. It traces shortly the origin and successive developments of each, in those alternate periods of progress and decay which generally corresponded to the periods of strong and weak government in the long history of the country. The influence on these developments of climate, material, priestly conservatism, and foreign arts and ideas is considered : and the æsthetic value of Egyptian art generally is estimated.

That some passages in the considerable sections of the work devoted to architecture are not very clear is possibly due to an inaccurate use, or translation, of architectural terms. The most interesting points made in these sections are that certain forms reappeared perpetually, with very slight variations, through thousands of years ; and that some were evidently of prehistoric origin, since

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

hieroglyphic signs in early use were clearly derived from them. On account of the difficulty in the Nile Valley of obtaining timber suitable for permanent building—a difficulty which documentary evidence shows dates back at least to the Middle Empire—great interest attaches to what appears to be the wooden origin of certain architectural features. While Professor Capart points out that some forms were derived from the woodwork used in light temporary buildings, he appears to think we may be deceived in supposing we see the influence of more heavily timbered structures : or at any rate to be trying to escape from that conclusion. One would like to know more of his views on that point.

Of one very interesting but isolated phase of Egyptian art we may not improbably learn much in the next few years, from the many articles found in the recently discovered tomb, most of which must have been made at Tel el Amarna under the influence of the so-called Aten heresy. Unfortunately that break away from traditional conventions, with its tendency to naturalism, appears to have been but a little backwater, without influence on the main stream of Egyptian Art. It was indeed very likely ignored at the time outside the court circle in which it flourished. At any rate it seems to have been forgotten by the next generation.

FRANK T. BAGGALLAY [F.]

TOM TOWER, CHRIST CHURCH, OXFORD.
Some letters of Sir Christopher Wren to John Fell, Bishop of Oxford. By W. Douglas Caroe, M.A., F.S.A. [Oxford : The Clarendon Press.]

Around seven hitherto unpublished letters written at various dates between May 1681 and September 1682 by Sir Christopher Wren to Bishop Fell of Oxford, who was also Dean of Christ Church, and relating to the design for and building of the Tom Tower over the gates giving access to the Quadrangle Court of Christ Church, Mr. Caroe has written a very interesting series of notes and observations concerning the great architect and some of his contemporaries and the men engaged upon the carrying out of his works. A chapter by Dr. H. H. Turner, Savilian Professor of Astronomy at Oxford, the chair which Wren himself occupied before he became fully engrossed in his work as architect, deals with some references in the letters to the former "Trade" of Astronomer with which, as Wren says, he was once well acquainted, and throws light on these references to another of the branches of learning in which this versatile genius attained pre-eminence.

The notes are authenticated by Mr. Caroe by references to and quotations from a variety of original sources, entailing research in many directions and well chosen for their own intrinsic interest as well as for the light that they throw upon the main subject. The book is lavishly illustrated in a manner which will be

appreciated alike by the architect and the general reader.

The original letters of Wren are of the greatest interest in themselves, exhibiting an easy mastery of the work in conception and conduct, an absolute insistence on essentials with a certainty of knowledge of his contractor and the extent to which he could safely rely upon him, and a way of managing a client who may have been a little *difficile* and edging him off impracticable ideas, which is still a useful art for the architect to study. An explanation which in one of the letters he gives of the dangers attending the tying up of new work to an old structure is a model of clearness. We have recently been glad to have the opportunity of hearing much concerning the many-sided genius of Wren and these letters add a touch of self-revelation of the greatest interest apart from the valuable material of a more technical character with which they have been illustrated by the author of this volume.

H. P. BURKE DOWNING [F.]

LINE : AN ART STUDY. *By Edmund J. Sullivan.*
[London : Chapman & Hall, 1922.]

In Hogarth's admirable portrait of himself and his dog Trump in the National Gallery the painter's palette bears in the corner the well-known serpentine curve—somewhat like an elongated S—bearing the inscription "The Line of Beauty." It was to explain this hieroglyph, and as his own deliverance upon aesthetics, that the artist dropped the brush for the pen, and wrote his not very successful *Analysis of Beauty*.

Mr. E. J. Sullivan, in his latest book, *Line*, neither supports Hogarth's contention that "The line of Beauty is a curve," nor lays down any limiting axiom of his own in opposition to it. Himself that master of pure line we know him to be, he treats his subject with a breadth of grasp that allows him to include in his consideration of "Line" chapters that deal with the Abstract straight line, Formal perspective, Aerial perspective, and, finally, Beauty. He does not, however carry his teaching quite so far as to help us to understand Gaugain's cryptic axiom, "Line is Colour"—a hard saying, as to the meaning of which Mr. H. A. Vachell (to whom it was addressed) says it is difficult even to hazard a conjecture.

As a speaker put it the other day to the Mathematical Association, we are now living in a new and expanded world of thought where we have to recognise that there are "no squares or rectangles, no straight lines, but only curves," and the author starts this book, in which philosophy and aesthetics walk hand in hand, with the statement—now so demonstrable—that "straight lines are only parts of infinite circles." Those who would care to go with him along the course of thought and reasoning that make of the geometry of to-day what the speaker referred to called an "extremely

THE LIBRARY

fascinating subject " are advised to read Mr. Sullivan's philosophical and closely thought out " Introduction." He gives us here a definition we meet with two or three times later on of what is to be understood by a line—any line—and posits it as being " the trace of a moving point." He adopts the immemorial explanation of a straight line as being " the shortest line between two given points," or, as it is phrased by a writer of the sixteenth century, " Euery line is drawen betwene two prickes, whereof the one is at the beginninge, and the other at the ende."

The dream of a world where the artist's aim is satisfied by conditions that allow both Time and Movement to be expressed in co-ordinated relation to one another inspires the whole of the somewhat speculative reasoning of the chapter on " The Third and Fourth Dimensions," and leads the author to a suggestion that " the artists had arrived at a conception of Relativity before the scientists."

In Mr. Sullivan's second chapter he turns to the practical side of the subject, and in treating of the means by which line can be produced, as draughtsman speaking to draughtsman, passes in review the necessary tools for the purpose—the lead pencil, chalk, charcoal, and the pen, either quill or metal. The hints he gives as to these are valuable and practical, and are followed by a description of the various processes of reproduction—etching, wood-engraving, wood-cutting, and lithography. The last of these he describes as a method " every artist should practise " as being " the most autographic of all the means of reproduction."

Mr. Sullivan's treatment of the Picture Plane and his advice to " think for " rather than to " feel for " the fixing of the artist's distance from this leads to a very informative chapter on Formal Perspective. By the aid of a series of diagrams he illustrates his axiom that " the vanishing point of any line coincides with that point at which a parallel ray from the eye meets the picture-plane." In his chapter on Figure Drawing he takes a somewhat unusual position and protests against the almost universal method of " blocking-in " as a first stage. He frankly calls this a dangerous habit as leading to lazy and indirect thought, and lays down as a starting-point for figure-drawing a due knowledge of the lines of the bone structure, rather than that abstruse acquaintance with the muscular system advocated in the schools.

The book has as a whole two not very usual attributes for a handbook of instruction. Its teaching comes home to us all the more for the gleams of humour that play, from time to time, about its pages ; and, in addition, its chapters are invested with that exceptional and individual charm of literary style the author's former volume on *Illustration* had led us to expect. His last chapter, an apologue in which, in the empty dusk of the deserted studio of his pupils, their cast of

the Venus of Milo—Our Lady of Melos—gives him " in the unchanging and timeless language of perfect form " her message that all Beauty is Revelation, and Form the god-like manner in which it is revealed to us, is an arresting and beautiful passage of English prose written by an art-master—who is also a poet.

C. HARRISON TOWNSEND [F.]

The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT ACQUISITIONS.

[These Notes are published without prejudice to a further and more detailed criticism.]

ITALIAN RENAISSANCE ARCHITECTURE. By Georges Gromort (Ecole des Beaux-Arts, Paris). Translated from the French by George F. Waters. 40, Lond. 1922. £1. [John Tiranti and Co.]

This is a short historical and descriptive account of the subject, and is the French counterpart of Anderson's *Architecture of the Renaissance in Italy*.

The ground covered is almost identical with the English volume, but should be in the hands of every student of the period, as it presents many familiar buildings from a new point of view, and gives fresh criticism of principles of mass, scale and proportion often lacking in English authors.

The 155 illustrations are from photographs and measured drawings, many of which are included in a published portfolio by the same author.

The book is full of strange misprints and spelling mistakes, but these do not materially affect an otherwise excellent handbook.

The distinguished author was awarded the Bailly Prize of the Institut de France in 1914 for this volume, a fact which is sufficient proof of its worth.

J. H. W.

ALTBURGISCHE HAUS-TÜREN. By Prof. W. Werdelmann P. Vorsteher, Godesberg. 40, Godesberg. 10s. 6d. [Paul Vorsteher, Godesberg.]

An interesting series of house doorways, chiefly of the eighteenth century, illustrated by good photographs. The district of Germany from which they are taken, the old Duchy of Berg, lies on the right bank of the Rhine below Cologne. The illustrations, which are very varied, comprise many charming examples, some of which suggest Dutch influence.

MEDIÆVAL FRANCE. Edited by A. H. Tilley. 80, Cambridge, 1922. £1 5s.

MODERN FRANCE. Edited by A. H. Tilley. 80, Cambridge, 1922. £1 15s. [Cambridge University Press.]

These volumes consist of chapters by recognised authorities on various aspects of French life, history, art, literature, the drama, industry, etc. In the former, Architecture is treated by Sir T. G. Jackson, and Sculpture, Glass and Painting by the Provost of Eton. In the latter volume, which covers the ground from the Renaissance to the Great War, Architecture is treated by W. H. Ward, and Painting, Sculpture and Decorative Art by Prof. Léon Hourtin. The articles on Architecture are illustrated.

W. H. W.

LE CASE POPOLARI E LE CITTA GIARDINO. 40, Milan [1922]. 15s. [Bestetti and Tumminelli, Milan.]

This work describes the recent development in Italy of the Garden Suburb and the small house. It is fully illustrated by black-and-white reproductions of geometrical drawings of estate plans and domestic buildings. Information is given in tabular form concerning costs, accommodation, and methods of construction.

C. C.-V.

Dinner and Presentation to Mr. John Slater

THE very evident desire on the part of a large number of members of the Institute to express in unmistakable terms their admiration for the devoted service which Mr. John Slater has rendered to the cause of architecture during many long years led, on 28 June, to the holding of a friendly dinner party at the Burlington Hotel. The guests—or rather hosts—present were thirty-five in number, and though the proceedings were not official the chair was taken by the President of the Institute, Mr. Paul Waterhouse.

After the chairman had handed to Mr. Slater, with a few words of explanation, the inscribed parchment upon which the sentiments of Mr. Slater's friends were recorded, a characteristic and charming speech was delivered by Sir Aston Webb, P.R.A., who, mingling reminiscence with cordial praise, gave expression to what was without doubt the thought of everybody present—a sense of gratitude to Mr. Slater for his very varied services, a sense of pleasure in the thought that the years of strenuous work had in no degree diminished his keen powers of thought and judgment, and, perhaps beyond all, a sense of happiness in an old friendship still enjoyed and still enjoyable.

It had in it no note of "farewell," this little tribute of admiration and affection. The architect friends of Mr. Slater, if they have no mind to burden him with the full measure of his past activities, have still less a mind to regard him as a man of the past. If he asks for rest it is his for the asking; but if he assumes that there is in this tribute any invitation to retirement, he misjudges alike his friends and his own powers.

These were the thoughts which the speeches and the parchment and the spirit of the evening strove to express.

Mr. Slater's reply was characteristic. Modest, of course, to the verge, and beyond the verge, of truth; full of disclaimer, but full, also, of that vigour of thought and wit of word which have characterised alike his work for his friends and his continual enjoyment of innocent good-fellowship. He could scarcely deny his lifelong willingness to work: he could, of course, not admit his success in the working. But he could not suppress the overflowing evidence of his power to make a first-rate after-dinner speech. It was Mr. Slater at his best, moved indeed by the display of the affection of his friends, but cheered, as we hoped, by the assurance of the permanence of that affection.

The text of the parchment is as follows:—

*TO A PAST VICE-PRESIDENT OF THE
ROYAL INSTITUTE OF BRITISH ARCHITECTS.
To one who since his election as Associate in 1879 and as a
Fellow in 1881 has served for nearly twenty-four years upon
the Institute's Council, and in more than twenty ways on
different Boards and Committees of that Body—*

To wit, to

Mr. John Slater, a Bachelor of Arts in the University of London, who at present, among other activities, is the valued Chairman of the Practice Standing Committee, and the representative of the Institute on the Tribunal of Appeal under the London Building Acts.

Whose deep and practical interest in the training of young architects has been proved since 1882, when he became a

member of the Board of Examiners, of which, as subsequently of the Board of Architectural Education, he held successively the posts of Vice-Chairman and Chairman up till 1917.

Who served with distinction in his earlier days on the Standing Committees for Science and Literature, and more recently with guiding discretion on the Committee for Finance.

Who has given special counsel in special ways on bodies set up to deal with subjects as various as the Library, the Charter, Competitions, Prizes and Studentships, Professional Defence, Copyright, Registration, Congresses and International Relations, and who has done all these things with energy and wisdom:

To this able and untiring colleague some of his friends whose names are here subscribed wish by this parchment to make it known

That deeply as they esteem the self-sacrifice, skill and devotion proved by the services herein recorded, and aware as they are of the insufficiency of such a record to describe the whole of his unremitting toil in the interests of the Institute, and, indeed, of the whole brotherhood of British Architects,

They yet prize beyond and above all this testimony of his career, the kind heart, the generous friendliness and the unfailing good-fellowship which they remember gratefully in the past, cherish in the present, and look forward to as a still abiding pleasure of the future.

It is interesting, in connection with the Dinner given to Mr. Slater, to publish a record of his long association with the Institute and the many activities on its behalf in which he has been engaged, as follows:—Elected Associate, 24 Feb. 1879; elected Fellow, 7 November 1881. Member of Council, 1886 to 1910. Vice President, 1900 to 1904. Member of the Board of Examiners (Architecture), 1882 to 1910; Vice-Chairman, 1896 to 1907; Chairman, 1907 to 1910. Member of the Board of Architectural Education from 1904 to 1917; Hon. Secretary of Board, 1905 to 1912; Vice-Chairman, 1912 to 1914; Chairman, 1914 to 1917. Member of the Science Standing Committee, 1886 to 1891 and 1896 to 1897. Member of the Literature Standing Committee, 1891 to 1894; Member of the Practice Standing Committee, 1898 to 1901; Vice-Chairman Practice Standing Committee, 1919 to 1921; Chairman, Practice Standing Committee, 1921 to 1923. Member of the Finance Committee, 1902 to 1910; and Chairman, Finance Committee, 1903 to 1910. Member of the Library Management Committee, 1887 to 1891; Special Education Committee, 1887 to 1889; Special Charter and By-laws Committee, 1887 to 1888; Special Registration Committee, 1887 to 1888; Competitions Committee, 1901 to 1906; Prizes and Studentships Committee, 1901 to 1911; Board of Professional Defence, 1904 to 1910; Copyright Bill Committee, 1910 to 1912; Registration Committee, 1912 to 1914; Constitutional Committee, 1913 to 1918; British Section, Comité Permanent International des Architectes, 1910 to 1923; R.I.B.A. Exhibition Joint Committee, 1922 to 1923; 7th International Congress Architects, 1906, Executive Committee; Finance Committee, Town Planning Conference, 1910; Lighting Research Committee, 1901. Represented R.I.B.A. on the University of London Architectural Education Committee, 1913 to 1916; at the Architectural Congress, Brussels, 1897; at the Royal Sanitary Institute Congresses, 1902, 1907 and 1912; at Conference at L.C.C. on Part 5 L.C.C. (General Powers) Bill, 1909; on Consultative Committee of Board of Education with regard to Leaving Examinations from Secondary Schools, 1904. Member of the Tribunal of Appeal under London Building Act, 1909 to 1923.

Franco-British Union of Architects

The third annual meeting and conference of the Franco-British Union of Architects was held in London from June 25th to 27th, when a series of visits, meetings and entertainments fully and most successfully occupied the three days.

The French delegates, with the officials of the British section, visited, by permission of His Majesty, Buckingham Palace and grounds on the last day of their visit, where they were met by Sir Lionel Earle, and inspected the Palace and grounds, after being introduced to Sir Derek Keppel and Sir Douglas Dawson. At the conclusion of the visit, members of the Bureau and the French delegates were entertained to luncheon by the First Commissioner of Works on behalf of His Majesty's Government, at the Ritz Hotel, when Sir John Baird proposed (in French) the toast of the guests. Previous visits included, on the morning of the 26th, a visit to the British Empire Exhibition, where, under the guidance of Mr. Maxwell Ayrton, the various stages in the construction of the buildings were examined; a visit to Knole Park, Sevenoaks, on the afternoon of the 27th, by kind permission of Lord Sackville, when the French delegates had an opportunity of realising the arrangement and planning of one of our most characteristic Elizabethan country mansions. On the 25th, Mr. H. Gordon Selfridge received the delegates, and personally conducted them over Lansdowne House, where they had also an opportunity of examining the owner's valuable collection of early Italian manuscripts, Mr. Selfridge afterwards entertaining his guests to luncheon.

The meeting of the Institute at which the President presented the Royal Gold Medal to Sir John Burnet had the advantage of the presence of many of the French delegates, who had prior to the meeting been the guests at dinner of the R.I.B.A. Council. Monsieur J. Godefroy (Vice-President of the F.B.U.A.) and Monsieur G. Legros (President of the Société des Architectes Diplômés par le Gouvernement) both testified to their pleasure at being present on an occasion when so high an honour was being conferred on one of the original members of the Union.

The Architectural Association, on the 26th January, entertained the delegates to luncheon, and they afterwards visited the A.A. Schools and the First Atelier of Architecture. On the afternoon of the same day, M. A. Louvet, Architecte en Chef des Palais des Beaux Arts, read a paper in the Institute Gallery on "Some French War Memorials, with special reference to the Monument to the Defenders of Verdun at Douaumont," to which further reference will be made in a later number of the JOURNAL. On the last evening of the conference the delegates were entertained at dinner by Mr. Arthur J. Davis at the Automobile Club, and thus brought successfully to a close the gatherings which had established more firmly than ever the cordial relations existing between the architects of the two countries.

During the business proceedings of the week of the conference, M. Godefroy was elected President, in succession to Mr. John W. Simpson; and Mr. Paul Waterhouse was

elected Vice-President. The following were elected as members of the British Committee: Messrs. P. Abercrombie, S. D. Adshead, Fernand Billerey, Sir Reginald Blomfield, Arthur J. Davis, A. N. Paterson and W. G. Newton.

Among the French delegates attending the conference were MM. J. Godefroy, Legros, Chiffot (Inspecteur-Général des Bâtiments Civils, representing the Ministry of Fine Arts), Louvet (Past President, S.A.D.G. and F.B.U.A.), Arvidson (Vice-President, S.A.D.G.), Schneider (Secrétaire-Général, S.A.D.G.), Chrétien-Lalanne (representing the Société Centrale des Architectes), Hebrard, Lish, Lefebre De Saint-Maurice, Vicomte de Sibour, Prince Weasemsky, etc. Amongst the English delegates were Mr. Paul Waterhouse, Sir John J. Burnet, A.R.A., Arthur J. Davis (Hon. Secretary, British Section, F.B.U.A.), H. P. Cart de Lafontaine (Secretary-General), etc.

Strand-on-the-Green

It may be of some interest, from the public point of view, to state that the R.I.B.A., through its Art Standing Committee, made inquiries of the local authority as soon as it obtained knowledge of the intention to build a new wall and make other changes affecting the amenities of Strand-on-the-Green, Chiswick. The Institute wrote several times officially to the Chiswick Urban District Council offering its advice, with a view to the contemplated works being carried out in the way least calculated to spoil a very charming portion of the Thames side. But it was only after long delay that the Chiswick Council expressed its willingness for representatives of the Institute to meet its members and officials to discuss the question.

Members of the R.I.B.A. Art Standing Committee accordingly attended a meeting at the site, and then discovered that the whole of the foundations of the new section of walling at present being dealt with was actually in position, and a fairly long stretch of concrete walling almost completed, faced with rubble walling of a most mechanically uninteresting kind entirely out of harmony with its surroundings. The Institute's representatives pressed that the exposed portion of the wall still to be completed should be faced with old bricks of the character shown in portions of the existing adjacent river walling and in the very charming houses lining that part of the river, and should be finished with a thin, plain stone coping, also of the character of the work in the vicinity. It was understood from the Surveyor to the Council that they had a quantity of suitable old bricks in store that could be used, and after discussion the Chairman of the Council and other members attending agreed that this change in treatment of the wall should be arranged for.

About three weeks later a letter was sent by the Clerk of the Chiswick Council to the Secretary of the Royal Institute stating that they felt a difficulty in making this adjustment of their contract, and that they were accordingly proceeding on the lines originally arranged for. The Institute is unable to understand the difficulty to which the Clerk of the Council refers, as variations of this sort in a contract are usually easy of adjustment, and it would

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

appear that in this case the change suggested and agreed upon might even have effected a saving in the cost of the work.

In view of the concern of the local residents in this matter, and the public interest that has been shown in preservation of the amenities of a recognised riverside beauty spot, the R.I.B.A. considers that these facts relating to the question should be known.

The Incorporation of Architects in Scotland

EXTRACTS FROM THE REPORT BY THE PRESIDENT AND COUNCIL FOR SESSION 1922-23, SUBMITTED AT THE ANNUAL GENERAL MEETING ON 16 JUNE 1923.

The Sixth Annual Convention took place at Inverness on 16 June 1922. The retiring President, Mr. A. N. Paterson, A.R.S.A., F.R.I.B.A., delivered an address in which he referred to the fortunate circumstance of this body having obtained a Royal Charter, and of the benefits to be derived therefrom. He also referred to the subject of architectural education. The full address was printed and circulated among the members of the Incorporation, and was subsequently embodied in the *Kalendar*.

As required by the Charter, new by-laws were drawn up. These were approved at a special general meeting held on 26 April, and were subsequently lodged with the Privy Council, whose approval is necessary.

As it was the intention of the late Sir R. Rowand Anderson to establish an education fund, the Council set aside for this purpose out of the residue of his estate the sum previously indicated by him, namely, £5,000—the income of which is to be devoted to educational purposes. The Education Committee having in this way an assured income, drew up a scheme in regard to prizes and studentships, which was subsequently approved by the Council. The full details were printed in pamphlet form procurable for sixpence at headquarters.

In conjunction with the Joint Committee of the Glasgow School of Architecture, further progress has been made towards the establishment of a degree in architecture at Glasgow University. Similar action is recommended to be taken by the other Chapters with their several Universities.

There have been admitted to the various classes of membership during the past Session 6 Fellows, 25 Associates, and 20 Students—the total number on the Roll being now over 600.

The Council in July 1922 resolved that members might make use of the initials as authorised by the Charter, viz.: Fellows, "F.I.Archts. (Scot.)"; and Associates, "A.I.Archts. (Scot.)".

The committee entrusted with the procuring of a design for a common seal had several sketches submitted to them. They recommended the adoption of a design executed by Mr. A. N. Paterson, Glasgow, and the Council having approved of this, the seal was made.

In connection with the Housing and Town Planning (Scotland) Act 1919, the Council issued a second circular to local authorities, the inhabitants of whose burghs numbered 20,000 and upwards, drawing attention to the desirability of having this important work put in hand forthwith, and the necessity for securing the benefit of the best available knowledge and skill by the employment of qualified architects in private practice.

At the request of the Royal Institute of British Architects a subscription list was opened for the necessary structural repairs of St. Paul's Cathedral, and the sum of £33 1s. 6d. was collected and remitted to London.

The draft of the Architects' Registration Bill was considered by the Council, and while in favour of Registration, they were

of opinion that some modification was necessary for the successful carrying through of the Bill, in order that the large number of architects who are not connected with the Royal Institute of British Architects may be adequately represented on the controlling board. The Royal Institute were written to on these lines.

The Council sent congratulations to Sir John J. Burnet, LL.D., A.R.A., R.S.A., on his being selected as the recipient of the Royal Gold Medal for 1923.

The house, 15 Rutland Square, which, as stated in the last Report, had been bequeathed to the Incorporation by the late Sir R. Rowand Anderson to form a permanent home for the Incorporation, has now been most suitably adapted by Messrs. Begg and Lorrie Campbell, architects, so as to meet the requirements of the Incorporation. It is hoped these headquarters will prove a boon to the profession by providing a suitable meeting place for all the members. There is a library comprising books on general subjects as well as works on architecture, which the members are invited to make use of.

From the financial statement it will be seen that £18,000 was received from the estate of the late Sir R. Rowand Anderson, and that a further sum of £500 is expected.

The Royal Institute of British Architects were invited to hold their Annual Conference for 1923 in Edinburgh, and they agreed to do so. The Annual Convention of the Incorporation will be conjoined with the Conference.

MIDDLESBROUGH AND THE NORTHERN A.A.

The County Borough of Middlesbrough has been transferred from the Province of the York and East Yorkshire Architectural Society to that of the Northern Architectural Association.

UNIVERSITY OF LONDON, UNIVERSITY COLLEGE

BARTLETT SCHOOL OF ARCHITECTURE.

PRIZE LIST FOR SESSION 1922-23.

Donaldson Silver Medal.—O. M. Welsh.

Herbert Batsford Prize (1st year).—H. Kendall.

Andrew Taylor Prizes.—(a) 2nd year Building Construction, E. Forster; (b) 3rd year Studio work, G. L. L. Morgan.

Ronald Jones Prizes.—(a) Mediæval Architecture, Leonora F. M. Payne; (b) Renaissance Architecture, F. S. Bardell.

Lever Prizes in Architecture.—1st prize (£15), Barbara Pouschkin; 2nd prize (£10), E. Burckhardt, M. A. Sisson.

Lever Prizes in Town Planning.—1st prize (£15), H. S. Triscott; 2nd prize (£10), L. M. Austen, T. R. M. Simpson.

First-Class Certificate in Architecture.—Helen M. Benham.

THE TERRITORIAL ARMY

R.E. "Commissions Corps of Royal Engineers." T.A.

47th (2nd Lon.) Divnl. R.E.,

Duke of York's H.Q.,

Chelsea, S.W.3.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I don't know whether there are any members of the Institute who are desirous of obtaining commissions in the Territorial Army. We have several vacancies in the above Corps, and I should be only too pleased to give any information to candidates, either at above or at my City address.

Yours faithfully,

(Sgd.) L. H. FISHER, A.R.I.B.A.,
Lieut.-Col. R.E., C.R.E.,

47th Division.

* * * A letter has also been received from Colonel D. Howard Gill, Duke of York's Headquarters, Chelsea, S.W.3, inviting recruits to join the roll of the new Territorial Air Defence Formation for the Protection of London.

COMPETITIONS

Legal

BUILDING OWNERS' LIABILITY FOR QUANTITY SURVEYORS' CHARGES.

A STATEMENT CONTRIBUTED BY MESSRS. MARKBY, STEWART AND WADESONS, SOLICITORS TO THE INSTITUTE.

A case was recently entered for trial before a judge of the High Court in which a question arose amongst others as to whether an architect was entitled to bind a building owner without his express instructions in respect of quantity surveyors' charges.

The facts are as follows :—

The building owner instructed an architect to prepare plans of a large building. The architect instructed quantity surveyors to get out the quantities which were subsequently used by the architect in inviting tenders. Such tenders, which included the quantity surveyors' fees and other charges for writing and lithography, proved to be very heavy, and the architect was therefore instructed to alter his plans and draw up a scheme on a reduced scale.

The architect prepared a fresh scheme, and again instructed the quantity surveyors. Ultimately the modified scheme was adopted, and the building owners repudiated any liability to the quantity surveyors, who, they said, must be paid, if at all, by the architect who had instructed such quantity surveyors, out of the 5 per cent. to which he, the architect, was entitled.

The quantity surveyors thereupon brought their action against the building owners, who in turn brought the architect into the action as a third party.

The contention of the building owners was that it was not necessary for the architect to employ quantity surveyors, nor had the architect any authority, express or implied, so to do on behalf of the building owners. The architect denied having agreed to accept 5 per cent. for all the work, including such work as it might be necessary to instruct quantity surveyors to do, and alleged that it was not a term whether express or implied of the alleged or any agreement that the architect should pay the expenses of employing the quantity surveyors. The architect alleged that he was entitled by custom or usage of the building trade to instruct quantity surveyors, and he further alleged that the matter was arranged at an interview with the building owner.

The architect had never in fact been paid his fee, and when he was brought into the action he counterclaimed for the amount of his fees. Ultimately, when the action was on the eve of trial, certain negotiations took place between the parties which resulted in a settlement. The building owners satisfied both the quantity surveyors and the architect.

It is a subject for regret that the action did not go to trial, as a definite decision in the English Courts as to whether the employment by building owners of an architect gives the architect authority to employ quantity surveyors and to bind building owners in respect of the quantity surveyors' charges would have been useful.

It appears that by the custom or usage of the building trade architects have authority to bind building owners in respect of quantity surveyors' fees, but so far as can be ascertained, no definite decision upon this point has yet been given in the English Courts, although there has been a decision in the Irish Courts in which it has been held that such authority exists and is implied by the custom or usage of the building trade.

Competitions

MANCHESTER WAR MEMORIAL COMPETITION

In view of certain comments on the Institute system of competitions which have appeared in the *Manchester Guardian* in connection with the recently abandoned War Memorial Competition, Mr. Paul Waterhouse has addressed the following letter to its Editor :—

9 July 1923.

Dear Sir,—During my Presidency of the Royal Institute of British Architects, which terminated at the end of June, I became cognisant of the facts and opinions referred to in your issues of 3 and 4 July. The allusions in your London letter of the latter date, while supporting and in fact commanding the practice of our Institute in the matter of competitions, need a word of supplement.

¶ Our regulations are by no means merely (if at all) measures of protective "trades-unionism." They exist—as a moment's thought will show—in the general interests alike of promoters and of architects; alike of the public and of Art itself. They have won their way to acceptance along a sometimes uneasy road on which architects themselves were the chief sufferers. Their final and complete recognition is the secret of the interesting fact that to-day our British Architectural competitions have the finest prestige in the world.

Open Competition, in this life of imperfections, is an imperfect way of choosing an architect, but it offers to the promoters of public schemes certain great advantages which will be lost if the present prestige is set back. I know a great deal more on the subject in general than discretion would permit me to say, and something more of this particular case than the courtesies of confidence would justify me in disclosing. I admit that to me it is a very great surprise that the reported deadlock should have arisen in Manchester, and I cannot believe that it represents the considered or permanent attitude of the City which has been so long the patroness of the arts, the friend of artists and—may I add—the devotee of common sense.

Yours faithfully,

PAUL WATERHOUSE, Past President R.I.B.A.

WESLEYAN NEW CHURCH & SUNDAY SCHOOL, WARRINGTON.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, Members and Licentiates are advised to take no part in the Competition.

IAN MACALISTER, Secretary.

The President of the Royal Institute of British Architects has nominated the following gentlemen as Assessors in the undermentioned competitions :—

Proposed Library, Armstrong College, Newcastle-upon-Tyne : Mr. Henry M. Fletcher, F.R.I.B.A.

Proposed Hospital for the Barton-upon-Irwell Union, Manchester : Mr. William A. Pite, F.R.I.B.A.

Proposed Public Hall, Truro : Sir A. Brumwell Thomas, F.R.I.B.A.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

SCHEME FOR THE IMPROVEMENT OF INDUSTRIAL DESIGNS.

The Royal Society of Arts are promoting a scheme with a view to providing an opportunity for the encouragement of ability in industrial designs. The Society propose holding an Annual Competition of Industrial Designs—one class open to students of Schools of Art, the other open to all. The subjects so far arranged are divided into four sections—Architectural Decoration, Textile, Furniture and Book production. After each competition exhibitions of selected designs will be held in suitable centres. The Society's diploma will be conferred on any candidate of outstanding ability. In order to add to the attractiveness and utility of the competition, the Society is anxious to raise a fund to establish money prizes and, if possible, one or more travelling scholarships. The Architectural Decoration Committee includes Sir Reginald Blomfield, Mr. Arthur J. Davis, Geoffrey Fildes, Sir Banister Fletcher, Sir George Frampton, Mr. Stanley Hamp, Professor A. E. Richardson, Mr. H. D. Searles-Wood and Mr. John Slater.

THE BRITISH INSTITUTE OF INDUSTRIAL ART.

The British Institute of Industrial Art, with which the Design and Industries Association and the Civic Arts Association are now associated, is arranging an Exhibition of Present Day Industrial Art which, with the consent of the Board of Education, is to be held in the North Court of the Victoria and Albert Museum, South Kensington, from 10 September to 20 October next.

Work in practically all the crafts which is approved by the Selection Committees will be included, and it is hoped that any Architects who have work of interest in Heavy Metalwork, Interior Decoration, Furniture or similar classes will co-operate. It is hoped to devote a special outdoor section in the quadrangle of the Museum to Monumental and other forms of Civic Art. The Secretary of the Institute at 16, Grosvenor Gardens, S.W.1, will be glad to send full particulars upon application.

VICTORIA AND ALBERT MUSEUM.

An Exhibition of Drawings of Old Colonial Architecture in New South Wales and Tasmania, by Hardy Wilson, will be on view in the Department of Engraving, Illustration and Design, Victoria and Albert Museum, until 11 August.

CHICAGO ARCHITECTURAL EXHIBITION.

The President of the Institute has received a letter from Mr. Clare C. Hosmer, A.I.A., the Director of the Chicago Exhibition, thanking members of the Institute for the contribution of their works to the exhibition and stating that "they excited no little interest."

NORTHERN POLYTECHNIC INSTITUTE.

The Governors of the Northern Polytechnic Institute have presented a set of graphs which have been got out under the supervision of Mr. T. P. Bennett [F.J.], head of the Architectural and Building Department, showing the variation in prices of a number of building materials over the war period. The graphs having attracted a good deal of attention, the Governors thought that they would be of interest to members of the Institute. They may be consulted in the Library.

Obituary

ROBERT FRANK ATKINSON.

BY CYRIL A. FAREY [A.J.]

On 15 June, at Leeds, after an operation for appendicitis, Mr. R. Frank Atkinson, F.R.I.B.A., died at the age of 52.

Mr. Atkinson's early training was in Liverpool, and he came under the influence of Norman Shaw. He started practice in London, and his work first became known generally by the new premises which he designed in Oxford Street for Messrs. Waring and Gillow. This was followed by the first portion of Selfridge's Store.

From the year 1908 to 1912 he was engaged upon his principal work, the Adelphi Hotel, Liverpool, of which only two-thirds has yet been completed. To appreciate the scheme fully, the third portion at the rear must be considered. The excellence and delicacy of detail in the Adelphi Hotel obtained for Mr. Atkinson the commission for the interior decoration for the Cunard liner *Transylvania* and Pullman cars for the London Brighton and South Coast Railway.

Mr. Atkinson's last important executed work is Magnet House, the premises for the General Electric Company in Kingsway, completed in 1921.

In addition to the above-mentioned works, the following is a list of some of the buildings erected from his designs :—

Council Offices and Law Courts, Bromley, Kent.
Council Offices, Carshalton.

Fire Station, Carshalton.

Shops and Business Premises, Oxford.

Business Premises, Great Portland Street, London.

Business Premises, Great Marlborough Street, London.

Premises in Bolsover Street, London.

Messrs. Darracq Motor Premises in Bond Street, London.

Interiors of many Hotels and Mansions.

Houses at Sanderstead, Surrey, Seaforth, etc.

Part of the Whiteley Homes at Walton-on-Thames (the bridge, main entrance gates, lodges and cottages).

The latter work was gained in competition. Mr. Atkinson submitted a notable design for the London County Hall, which was selected for competition in the final round.

In 1920 he gained second premium in collaboration with Mr. Farey in the open competition for business premises at Leeds.

Three days before his death he sent in a design for the Bournemouth Pavilion competition in collaboration with Mr. Charles D. Carus Wilson and Mr. W. Boyd Scott, his former assistants, who will carry on his practice.

He leaves a widow and young child and five children by a former marriage.

OBITUARY

E. KEYNES PURCHASE.

By ROLAND WELCH [A.]

The death of Mr. E. Keynes Purchase took place at his home at Morden, Surrey, on Friday, 4 May.

Mr. Purchase had an attractive and lovable personality which appealed to everyone with whom he came in contact and inspired confidence and trust. I think I may say that he held not only the confidence but the affection of all who knew him. He was a man who abhorred a dispute of any kind, and his method of dealing with difficult contractors and clients showed extraordinary tact. His genial and kindly manner disarmed the person with a grievance, with the result that differences were left to him to settle, each party feeling satisfied that he would do the right thing.

Mr. Purchase was born at Kington, Herefordshire, on 29 April 1862, and was educated at Brecon College and Amersham Hall, Caversham. He served his articles with Mr. Nicholson, of Hereford, and on coming to London was assistant for a short time with the late Walter Emden. In 1883, at the early age of 23, he went into partnership with the late Mr. G. D. Martin. This partnership, under the style of Martin and Purchase, with offices at 11 Mansion House Chambers, Queen Victoria Street, E.C., lasted for 12 years, during which time they designed and built a number of commercial buildings and blocks of flats in Shaftesbury Avenue and Charing Cross Road, etc. In 1895 the partnership with Mr. G. D. Martin was dissolved, and Mr. Purchase carried on practice alone until I went into partnership with him. He remained in the City until 1904, when he removed to 20 and 22 Maddox Street, W.

His earlier works were principally commercial buildings and residential flats in the West End.

His later works include the following :—The Palm Court at the Hotel Cecil ; Aldine House, Bedford Street, Strand, for Messrs. J. M. Dent and Sons, the publishers ; the Royal Automobile Club, Pall Mall (in association with Messrs. Mewes and Davis) ; Hay Green, Kingston Hill, for D. Stoner Crowther, Esq. ; bank premises at 80 Gracechurch Street and Waterloo Place, S.W., for Messrs. Cox and Co. (now merged in Lloyds Bank). During the war he carried out the following munition works :—Housing and canteens for Messrs Vickers, Ltd., at Dartford, Crayford and Erith ; also the Princesses' Theatre, Crayford, for munition workers ; H.M. factory and village, Langwith, Derbyshire, for the Ministry of Munitions ; aeroplane factories at Chelsea and Wembley, for Messrs. Hooper and Co.

He had many hobbies, being a keen motorist, photographer and golfer. He was also interested in aeronautics, and a founder member of the Royal Aero Club, which he joined before the advent of the modern aeroplane.

W. H. SCRYMGOUR [A.]

Mr. Scrymgour was the son of Captain William Scrymgour, R.N. He was born on the 26 July 1852 and died on the 1 April 1923.

During his long professional career Mr. Scrymgour designed a considerable number of business and other premises in the City and West End of London, but a large part of his work, especially in later years, was in con-

nexion with properties in the ownership of which he was himself interested. In this latter connection he was responsible for the design and erection of a considerable number of blocks of residential flats and in particular of several well known blocks on the Portman Estate, viz., Portman Mansions, Bickenhall Mansions, Bryanston Mansions, Montagu Mansions and York House.

Mr. Scrymgour had given great thought and consideration to the planning of this class of buildings, especially with regard to the economy of space in the setting out of the walls and the convenient arrangement of accommodation, lighting and heating, and had himself evolved many improvements which added greatly to the comfort and convenience of the occupants.

Although Mr. Scrymgour had not given up his professional work, he had of recent years spent a considerable part of his time on his property near Whitstable, where he interested himself in farming.

ANTHONY WILSON [Licentiate].

Anthony Wilson, who died on the 9 June last, was the son of the late Arthur Wilson, M.A., and was born at Melbourne, Derbyshire, in 1877. He was articled to James Wright, architect, of Derby, and in 1896 entered Mr. Bodley, R.A.'s office, where he remained for four years. He joined the 3rd London Fusiliers in 1896, and reached the rank of captain. He left the regiment on his marriage in 1912, but rejoined in 1914 on the outbreak of the war, and served in France.

Among his works are 66 Queen Anne Street, W., and a house at Denham, work at Pull Court, Worcestershire, including a private chapel and library ; war memorials at Bennington, Walkern and Preston Landover, and many other works.

E. ARDEN MINTY.

WALTER WHEELER [F.]

Mr. Wheeler was one of the older members of the Institute, being elected Associate 1879. His early life was spent in London in the offices of the late Mr. Watson. He began practice in Southampton some 40 years ago, and during that time carried out much work in that district, including many alterations to business premises and general street architecture. He was a native of Romsey, Hants, and was a keen and interested member of the Hants and I.W. Association of Architects.

CRICKET MATCH.

The Architectural Association have challenged the R.I.B.A. to a cricket match to be played at Elstree on Wednesday, 18 July. In order that a representative team may be secured the Secretary R.I.B.A. will be glad if Members and Licentiates who are regular players will kindly send their names to him as soon as possible.

TRADE CATALOGUES.

The Plate Glass Publicity Bureau have sent a pamphlet entitled "Windows of Character," which describes the process of manufacture of plate glass and its use in buildings.

Holophane, Ltd., have forwarded their "Index to Glassware and Fittings," a catalogue which has been divided into sections dealing with units designed for different classes of illumination. There is also a section which is devoted solely to useful engineers' data.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notes from the Minutes of the Council Meeting

25 JUNE 1923

THE BRITISH INSTITUTE OF INDUSTRIAL ART.

It has been decided by the Institute Council to support the Exhibition which is being arranged by the British Institute of Industrial Art at the Victoria and Albert Museum in September and October next. The Exhibition is to consist of Churchyard Monuments and other Architectural exhibits.

Architects who wish to exhibit appropriate examples of work within the scope of this Exhibition are recommended to communicate with Major A. A. Longden, D.S.O., Director of the British Institute of Industrial Art, 16 Grosvenor Gardens, S.W.1, from whom particulars may be obtained.

THE SINGAPORE SOCIETY OF ARCHITECTS.

The Institute Council have approved the application of the Singapore Society of Architects for admission to alliance with the R.I.B.A.

READING CORPORATION BY-LAWS.

It has been decided by the Council, at the request of the Berks, Bucks and Oxon Architectural Association, to support the Corporation of Reading in their efforts to obtain the sanction of the Ministry of Health for a provision relating to footings in their new By-laws similar to that in the London Building Act.

RETIR ED FELLOWSHIPS.

Mr. Albert E. Murray [F.] has been transferred to the class of Retired Fellows.

Mr. E. H. Bourchier has been transferred to the class of Retired Fellows.

REINSTATEMENTS.

Mr. J. Caughey Walker has been reinstated as a Licentiate.

Mr. Cecil A. Sharp has been reinstated as a Fellow of the Royal Institute.

HON. FELLOWSHIP AND HON. ASSOCIATESHIP.

The Right Hon. Viscount Burnham, C.H., LL.D., has been proposed by the Council for election as an Honorary Fellow of the Royal Institute.

Sir Frederic George Kenyon, K.C.B., M.A., D.Litt., Director and Principal Librarian at the British Museum, has been proposed by the Council for election as an Hon. Associate of the Royal Institute.

THE BRITISH SCHOOL AT ROME.

THE HENRY JARVIS STUDENTSHIP, 1924.

Application forms for permission to compete in the Preliminary Competition for the Rome Scholarship in Architecture can now be obtained from the Honorary General Secretary, British School at Rome, 1 Lowther Gardens, Exhibition Road, London, S.W. The latest date for issuing forms is 15 October 1923.

THE DONALDSON SILVER MEDAL IN ARCHITECTURE.

The University College Committee have awarded the Donaldson Silver Medal in Architecture of the Royal Institute of British Architects to Mr. Oliver Martin Welsh.

Mr. Welsh matriculated in June, 1917, and after service in the War began his University career in 1919, and passed the Fourth Year Diploma Examination this year.

Members' Column

Members, Licentiates, and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

PARTNERSHIPS WANTED.

LONDON ARCHITECT, with practice, desires partnership in busy office. Capital available.—Box 6723, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

LIVE ARCHITECT SURVEYOR (A.R.I.B.A., late General Staff Officer) seeks touch with senior leading member of the profession in London to practice more fully in partnership or collaboration; capable and energetic abilities now not sufficiently utilised. Identity, etc., will be first disclosed in confidence by the Secretary to any likely respondent.—Apply Box 2963, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. (39), now retiring from carrying on a very successful domestic and general practice abroad, wishes to get in touch with an architect, preferably in the southern counties, who is desirous of admitting a partner or disposing of his practice. The writer, now in England, will be in Italy during the coming winter but available from next April.—Apply Box 741, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENT WANTED.

ASSOCIATE (33) desires engagement as Senior Assistant. Good experience of first-class domestic and general work; competent to take charge and carry schemes through if desired.—Box 4723, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

FOR SALE.

ARCHITECT retiring from practice about 21 July has for disposal a trestle drawing-table (9 ft. by 3 ft. 3 in.), cupboard, etc. To view this furniture, apply during ordinary office hours to—Housekeeper, 88 Gower Street, W.C.1.

MR. WALTER PAMPHILON (LICENTIATE).

Mr. Walter Pamphilion's London address is 11 Avenue Chambers, Southampton Row, W.C. Telephone: Gerrard 8077.

OFFICE TO LET.

ARCHITECT desires to let a large room in his office looking over the gardens of Gray's Inn, with use of telephone.—Apply Box 1553, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

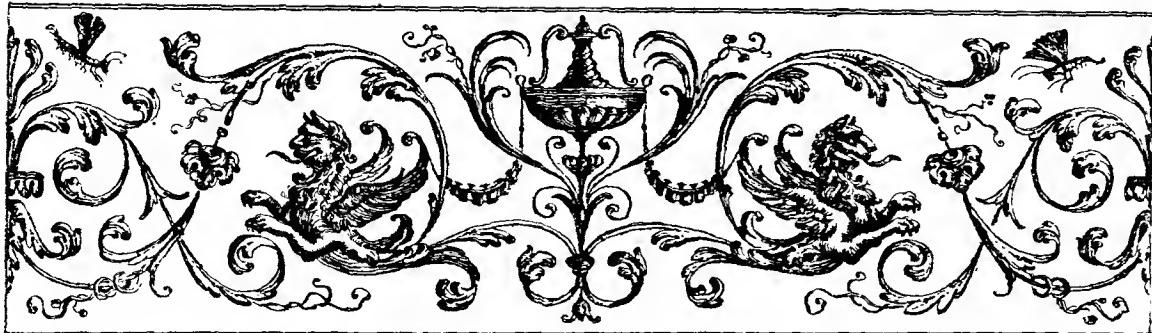
Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Architectural Education a Century Ago

Being an account of the Office of Sir John Soane, R.A.,
Architect of the Bank of England, with special reference
to the career of George Basevi, his pupil, Architect of
the Fitzwilliam Museum at Cambridge

BY ARTHUR T. BOLTON [F.], F.S.A., CURATOR OF THE SIR JOHN SOANE MUSEUM

THREE is an authentic story of Norman Shaw advising a student in the Royal Academy Schools to go and have a look at Wren's Hampton Court, with the added comment, "I think that you will find it is very good work." In the same spirit it may be suggested that the Fitzwilliam Museum at Cambridge is an approved building. I cannot remember, in fact, to have heard it mentioned without respect. It occurs to me, therefore, that a few notes on the educational method in Soane's office, wherein George Basevi was a pupil from 1811 to 1816, may be of interest to architects in general.

When the new pupil entered the office Soane was already 58 years old, and had been in practice 31 years. Basevi's companions in the office were nine in number, as follows :

Name.	Date.	In office.
Bailey ..	.. 1792-1860	1806-37
Edwards ..	.. 1784-1857	1806-10
Chantrell ..	..	1807-14
Underwood ..	..	1807-15
Buxton ..	..	1809-14
Basevi ..	.. 1794-1845	1811-16
Tyrrell ..	.. 1795-	1811-16
Foxhall ..	.. 1793-1862	1812-21
Parke ..	.. 1790-1835	1814-20

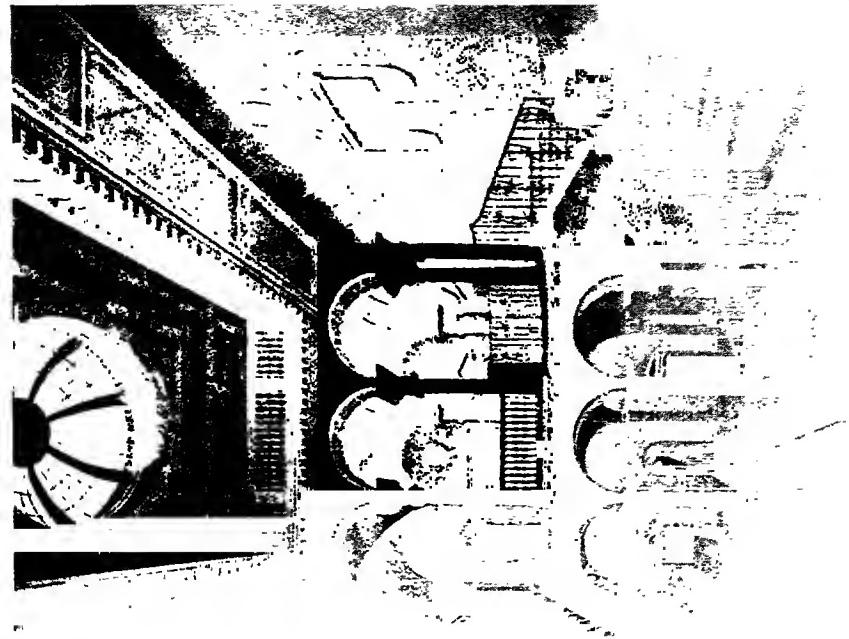
and the works in hand were :

- 1808-10. New Bank Buildings, Princes Street (destroyed).
- 1809. New Infirmary, Chelsea Hospital.
Lecture Diagrams (in constant preparation from 1809 onwards).
- 1811. Entrance to London Dock Co. House, and to Messrs. Thellusson and Co., Meeting House Court, Old Jewry (destroyed).

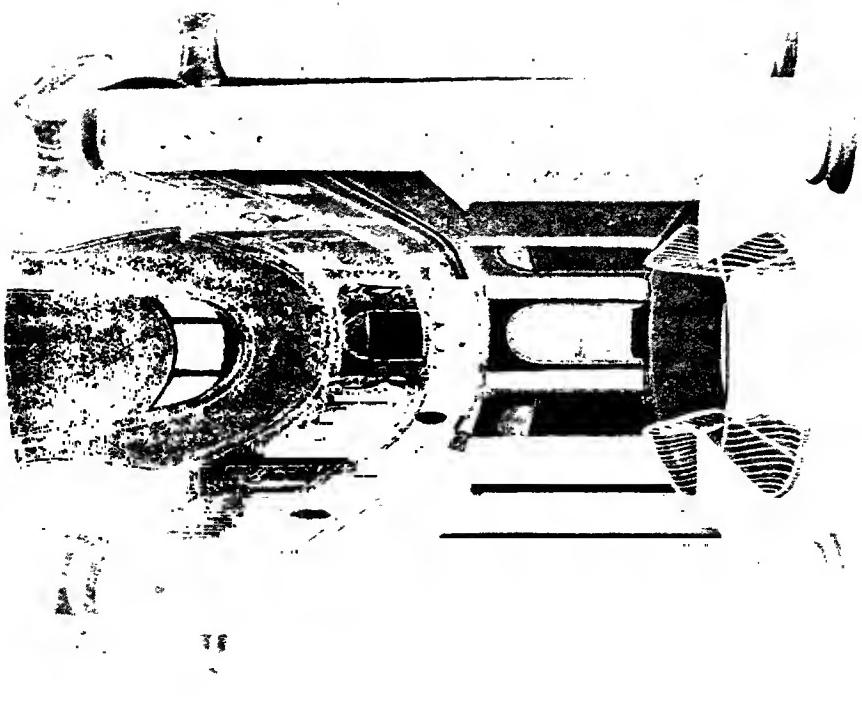
- 1812- House in Park Lane. Mr. Robins. (Position uncertain.)
 - 1815. Everton House, Beds. Wm. Astell. Additions and alterations.
 - 13, Lincoln's Inn Fields (the present museum). Dulwich Gallery and Mausoleum.
 - 1815. Earl of Hardwicke. St. James's Square. Additions. *Note*.—In this year Soane was appointed to the Office of Works, with Nash and Smirke, as "Attached Architects."
 - 1816. Farm House. Thos. Swinnerton, Butterton, Staffs.
 - 1816. Mrs. Soane's Tomb (adjoining St. Pancras Old Church).
- Designs (not carried out).*
- 1811. Combe House, Devon. R. Putt, Esq.
 - 1815. Camolin Park. Viscount Valentia.
 - 1816. House for Thos. Swinnerton at Butterton. (Model in the Soane.)
 - 1816. Entrances, Hyde Park and St. James's Park (Trafalgar and Waterloo Memorial).

Of the above it is known from references in his travel letters home that Basevi was concerned with the Soane tomb, of which he made a coloured drawing, and with the house for Swinnerton ("several months before I left"), while he more than once enquires "what is going on" about the last in the design list, a projected war memorial, as if he had a special interest in it.

There are a great many drawings in the Sir John Soane Collection that can be identified as by Basevi, either as sole or part author. It is also possible to form a very complete idea of the course of his training during the five and a half years that he was with Sir John Soane. Previously he had been at that well-known school of the old classical type, which Dr. Chas.



DRAWING OF THE STAIRCASE AT CARRINGTON HOUSE, WHITEHALL.
SIR WILLIAM CHAMBERS, R.A., ARCHITECT
By G. BASEVI, WHILE A PUPIL IN SIR JOHN SOANE'S OFFICE



DRAWING OF STAIRCASE IN THE MARQUESES OF BUCKINGHAM'S HOUSE IN
PALL MALL. SIR JOHN SOANE, R.A., ARCHITECT
By G. BASEVI, WHILE A PUPIL IN HIS OFFICE

ARCHITECTURAL EDUCATION A CENTURY AGO

Burney (1757–1817) had moved in 1793 to Greenwich. Possibly Basevi did not greatly care for it, because he expresses a hope not to meet old schoolfellows again. He had, without doubt, an early inclination to architecture. There is mention of a tin case of his grandfather's, brought from Italy, containing the Palaces of Verona (possibly the plates of Valesi's *Varie fabbriche antiche e moderne della citta di Verona*; folio, Verona, 1753). His father, who was on the Stock Exchange and lived in Montague Place, Russell Square, evidently knew Soane very well. It would appear that he had himself been in Italy, and throughout he keeps in close touch with his son's interests and work abroad.

Basevi Junior first appears in the Office Day Book quite suddenly, on 19 December 1810, and the seven preliminary weeks before the signature of his articles (11 February 1811) are occupied in drawing the Orders, beginning with a day spent on "the mouldings," Tuscan one day, Doric two, Ionic four, and so on, the series apparently finishing with an elaborate pencil drawing (21 by 18) of a Corinthian cap, the diameter of the column being $12\frac{1}{2}$ inches. This is preserved in the Pupils' Book, and in signing it he has added "January 21, 1811, eleven days." There is also a drawing of "a frieze in the Medici Gardens," 2 $7\frac{1}{2}$ by 20, in pencil and of an early date.

He then goes out with two others to take the plan of a house in Montague Place, works on Dulwich College, then in hand, and spends a day squaring dimensions. Temples are next drawn and perspective is begun.

He is sent to Chelsea Infirmary to take notes of work in hand and then spends five days drawing a view of a room in that building.

Soane's pupils seem to have visited works in hand, in pairs, and had to take sketches, which were then entered in a book recording the visible progress of the work. They must in this way have acquired an excellent idea of the construction actually in execution. By May 1811 Basevi is able to undertake a perspective view of the famous Triumphal Bridge design of 1776, of which composition there are so many versions in the Soane, nearly three weeks being thus occupied. All the time Basevi was with Soane diagrams for the Royal Academy Lectures were being made, and at times the entire staff of seven seems to have been concentrated on a particular subject requiring several sheets of plans, sections, elevations and views.

These diagrams, accurately drawn and elaborately coloured, were further required to be reduced to a small scale, as illustrations to the MS. original folios of the Soane Lectures. The number of great examples of historical architecture, at home and abroad, thus drawn by the pupil is remarkable, but a list of them would occupy too much space. They practically cover every class of building, and the work of nearly

all the famous architects. Of Robert Adam's buildings, for instance, Basevi draws the Admiralty Screen, the Record Office of Scotland, and 20, St. James's Square; of James Wyatt, the Cobham Mausoleum; of Sir Wm. Chambers, Carrington House staircase, etc.

One of his remarkable early perspectives is a view of Westminster Hall Roof (March 1813), which is quite romantically rendered, with strong effects of light and shade. It is not, however, a drawing that probably would reproduce very well.

At the end of January 1813 Basevi and Underwood were "absent by permission" five days drawing at the Royal Academy, where Basevi was admitted a student probably in February, but unfortunately no record remains of any work done by him there, and he was not a prizewinner if he ever competed.

In June of this year the building of No. 13, Lincoln's Inn Fields must have been so far advanced as to suggest to the enterprising pupil the idea of making a bird's-eye view of London from the roof, on which accordingly he spends three days.

He is sent to Ashburnham House and spends three days measuring the Inigo Jones staircase, three days drawing it out, and nine days making a view.

In August he has a day's work with the head of the office measuring masons' work, and then spends two days at Lord Carrington's house in Whitehall, taking sketches for the drawing illustrated, on which thirteen days were spent.

These days were all of long hours—9 a.m. to 8 p.m.—and it is not surprising that he was away unwell six days and then takes his annual holiday of six weeks.

At the beginning of 1814 Basevi with Bailey spends seven days on the Chelsea Hospital accounts, with a further ten days on the same in June, showing that the business side was not neglected.

He also squares carpenters' dimensions from detail plans for a vicarage, and goes out to record the actual progress of the new entrance to the Rotunda at the Bank, both works then in hand.

These occupations are often broken into by the whole office working as a gang on some house, or other job, that was urgent, and always if there was nothing else to do the Museum was there to be drawn, or its "ornaments," i.e., the casts that enliven its walls.

The record of work in 1815 is on similar lines, but in September and October Basevi is away on a visit to France with a friend of his father's.

In the year 1816 there was work in hand for the Freemasons, in Great Queen Street; for Lord Bridport; and for Colonel Horner (Mells Park), and a house for Thos. Swinnerton at Butterton (not built). The chief interest, however, seems to have been the famous tomb for Mrs. Soane, who had died suddenly November 1815. Twenty days seem to have been spent by Basevi on this, with a further fifteen days making a



PENCIL DRAWING MADE AT ATHENS BY G. BASEVI, 1818
PROBABLY OF THE PARTHENON

PENCIL DRAWING MADE AT ROME BY G. BASEVI, 1818 OR 1819
PROBABLY AT THE COLOSSEUM



PENCIL DRAWING OF THE PROPYLÆA AT ATHENS. BY G. BASEVI, 1818



PENCIL DRAWING OF THE ACROPOLIS FROM HADRIAN'S TEMPLE AT ATHENS. BY G. BASEVI, 1818

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

bird's-eye view. This drawing shows the tomb with a distant landscape, and, as it is mentioned more than once in Basevi's home letters, it seems to have been regarded as his *magnum opus*. He also made an outline for the engraver, most probably for the publication in the *European Magazine*.

Apparently Basevi Senior was much impressed with George's skill with the brush and looked forward to some framed results of his son's travels abroad. The young architect, however, prefers his pencil, and writes back that he can make three times as many studies in that way with the time at his disposal.

John Soane, Junior, writing to his father from Italy (1819), records that Turner made the same reply to those who were objecting to the rough memoranda he was making while in Italy.

The last entry of Basevi in the Office Day Book is 12 June 1816, exactly four months after the expiry of his articles, making five and a half years in all.

The following letter is a fitting close to his pupilage:

George Basevi to John Soane.

Montague Street,
6 July 1816.

SIR,—I was on the point of calling on you Thursday last, when I unexpectedly received your kind note, mentioning your having quitted London, and enclosing me a draft for twenty-five pounds.

I sincerely regret having lost the opportunity of paying my respects to you, but still hope to have that pleasure before I quit England. In the meantime permit me to assure you how sensible I am of your intentions, but at the same time to express my conviction that I am not entitled to receive any pay for the few months I remained with you, beyond the expiry of my articles. A part of that time having been devoted to a subject in which my feelings were concerned.

I could receive no greater remuneration than the gratification it afforded me; and in fact the whole time was employed in objects which tended much to my improvement.

Under this impression I trust you will not be offended at my returning your draft, as I assure you I nevertheless retain a due sense of gratitude for your kindness for me, and shall ever remain with sincere respect, Sir,

Your obliged servant,
GEORGE BASEVI, JUNR.

John Soane, E.

It was on the 23rd of August, 1816, that the now emancipated pupil set out upon his memorable tour of three years, his first letter home being dated Paris, 26 August.

Of this formative period of his life some fifty of the drawings then made have now been presented to the Sir John Soane Museum by his grandson. They can be divided into two groups, made in Italy and Greece respectively. Basevi deliberately destroyed while still abroad his earlier drawings, and it seems certain that there were originally many more in his portfolio when

he returned. From their general character we can see that while in Soane's office the constant preparation of the lecture diagrams, always in progress, had greatly interested and influenced the new pupil. These water-colour drawings were all, after the first few, about 4 feet by 2 feet in size, and usually they are all very broadly treated in body colour, like pastel, or distemper, in effect. Perhaps in consequence of this the pupil's studies abroad are mainly made on a large board, sometimes on two sheets of paper pasted together. He tackles panoramic views of the Roman Forum, Tivoli, the Athenian Acropolis, and the cities of Siena, Vicenza, etc., with evident delight. The form of the architecture, however, is always closely observed. His rendering is not the mere outline of the painter. Form, composition and perspective are foremost in his mind, and he dismisses the rapid sketches of others as outside the question. "The more I see, the more I am convinced that the rules of composition are the same in all the Arts."

Referring to Buxton, his fellow-pupil, who was independently in Italy at the same time, and was talking of becoming a sculptor, Basevi writes that it is too late for him to turn off now (at 25–26), besides which, he adds, "he never could draw." Accuracy of drawing and the full representation of detail are the distinguishing character of all the Soane drawings, irrespective of the general effect of light, shade, and colour effect aimed at.

Basevi himself, during this memorable tour, 1816–19, was 22 to 25 years old. Practically he was of the same age as young Charles Barry, who, however, had had a year more in an office by the time when he set out on his grand tour (1817–20). They were both in Rome in the winter of 1817, but did not apparently meet. This is easily accounted for, as it was only after his Egyptian visit that Barry was lionised in Rome, the winter of 1819, by which time Basevi had already returned to England (June 1819). The lion of Basevi's early days in Rome was Cockerell, who was then on his return from Greece. The new-comer longed to see his senior's much-talked-of drawings, but there was a hitch, and by the time the two had become acquainted the younger man had already felt his feet, and had become indifferent.

Hugh Williams (1773–1829), a landscape painter, known afterwards in Scotland as "Grecian Williams," and Ervine were two of the artists in Rome from whom Basevi acknowledges that he had derived most benefit in his studies. His most marked advance, however, took place during his own Grecian tour in the summer of 1818. He was constant to the Acropolis, and the Theseum. These drawings of his are much more artistic than the contemporary drawings in the later volumes of Stuart and Revett. It is evident that Basevi did not much like measuring, and his detail study is not



PENCIL DRAWING OF THE TEMPLE OF FORTUNA VIRILIS AT ROME. BY G. BASEVI, 1818



GENERAL VIEW OF SIENA. PENCIL DRAWING BY G. BASEVI, 1819

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

that of Taylor and Cresy, who were in Rome at the same time. He refers to them expressing his disbelief in their methods. No doubt they were indiscriminate in measuring all and sundry, but a little of it would have been beneficial to George. It is curious to reflect what a far-sighted prediction might have been hazarded respecting the future relative success of Basevi and Barry, as Thackeray told Millais that "he had met in Rome a versatile young dog, called Leighton, who would one day run him hard for the presidency." In Basevi's favour was the advantage of having been in an office of Soane's high standing, while Barry came from Middleton and Baily in Lambeth, more surveyors than architects, except that Baily was an occasional exhibitor at the Academy. There can be little doubt that Barry made a better use of his time in Sicily, Rome and Italy after his return from Egypt than Basevi did after his return from Greece. Barry measured and analysed extensively, while Basevi made memoranda and rough notes, when he was not making his large drawings. Moreover, it is evident that towards the end he grew very homesick, and eventually cut all short for the joy of rejoining his loved ones at *home*, "Blest name," as he writes in his final travel letter (Paris, 8 June 1819).

He was the eldest of a family of five (two brothers and three sisters), so that he has six people to whom he addresses a long weekly letter, more or less alternately. The character of the boy, as painted by himself in this correspondence, is impetuous, headstrong, but very amiable. A strenuous worker, but subject to melancholy fits, when tied to a place like Rome. Active travelling he enjoys, but requires intervals of stopping in one place, where he can digest his ideas and thoughts. As may be expected from a distant Italian connection, he gets on well with foreigners, and thus is very well received in good Italian circles, where few English ever penetrate. For all that he rejoices in being English, and has no desire for a domicile abroad. He has the usual English love of Florence, as a queen of cities, but Vicenza, for society and the architecture of Palladio, comes next in his heart. To Venice he is indifferent, after the first surprise—Ruskin and Street were yet to be—and even Verona does not greatly move him. Tivoli is "a square mile of perfection," from which "he derives the greatest improvement." Here, he cries, "Poussin and Claude studied." And what did he think about his master Soane? It is permissible to quote Norman Shaw once more: "Ah," he shrewdly remarked to an aspiring student, "you would not think much of me if you were in my office." Basevi wrote two long and most interesting letters from Rome and Athens to his old master, both the outcome of much reflection. He had evidently rather a respectful awe of the great man, with at the same time all the new-comer's confident belief that he could originate a better style for himself.

Curiously enough, he met, at Rome, Sanders, the first pupil of all, and they discussed the master in the intimate dissection of old pupils. He does not give particulars, unfortunately, but says their views were the same. Sanders had given up architectural practice, and was travelling part of the time with Taylor and Cresy.

Basevi meets young Hardwick, and reckons him an ass. Young John Soane, who was also in Rome, at his father's expense, with his wife and children, is "censorious and an intolerable bore. He looks like a Methodist parson, always with a book, usually borrowed, under his arm. His wife is a pushing person, fallen off in looks, and is terribly indiscreet in her talk." One needs to be very young to be so clear-sighted and alarmingly frank. Whether he is dealing with the doings of the English in Rome, the life of Byron in Italy, or the reality of the laws of the Republic of San Marino, there is plenty of shrewd observation in Basevi's letters.

In reference to the Roman idol of the day he writes: "How completely Canova (1757-1822) has turned away the public feeling for paintings, they are scarcely mentioned here . . . the galleries that contain the finest pictures in the world are not thought by the major part worth a turn in and out."

Basevi gives the preference to Thorwaldsen (1770-1844), and it is noteworthy that he is surprised to find Flaxman (1755-1826) better esteemed in Italy than at home.

John Gibson (1790-1866), future sculptor of the "Tinted Venus," arrived in Rome October 1817, and was adopted at once as a pupil by Canova. When Sir Francis Chantrey, R.A. (1781-1841) came to Rome on a visit in 1819 he asked Gibson how long he had been in Rome, and on a reply of "Three years, and I hope to be here three more," said: "Three years in Rome is enough to spoil you or any other artist." Gibson did not return for 27 years, and, in fact, settled in Rome, where he died. He was elected A.R.A. 1833, R.A. 1836, in his absence. This attraction was characteristic of the time and may have been in Basevi Senior's mind in reference to his action in disowning George's inclination to modelling.

The Accademia di San Luca was visited by George, who was very handsomely received by Camporesi,* and he seems to have occasionally worked there, but it must have fallen off in repute, as he says he has "no wish to add that title" to his name.

It is unfortunate that there is no record of Basevi after his return calling upon his old master, and showing him his sketches made abroad. It would seem certain that he must have done so, if experience did not prove that such visits are rare. Students are

* Cav. Giulio Cimperesi occupying the Chair of "Architettura elementare ed ornato," 1811.

ARCHITECTURAL EDUCATION A CENTURY AGO

so seldom satisfied with their results, in view of their hopes and expectations before they set out. Actual reproach will very likely be necessary to induce them to show what they have done, hence the wisdom of compelling medallists to exhibit their work on their return.

That this period of travel was the crown of Basevi's work in Soane's office is unquestionable. It served the true purpose of a University.

"Rome, the eternal city, is," he writes home in October 1817, "the only place for an artist to live in; the climate, the associations, the everything, lends itself to form the painter, the artist."

"I have been eight or nine months in Rome, and each day, instead of telling me I am better acquainted with the buildings, shows me what I have to labour to comprehend their beauties, and how distant, how very distant, we moderns are from their excellence.

"I am beginning my profession over again. I am reading Vitruvius day and night, and another excellent modern author, Milizia. They help me on, moreover, with Italian, being both extremely difficult; my other hours I read mathematics, and at meals English books. I have read since I have returned to Rome *The Sorrows of Werter*. I recommend it to your perusal. It has been, when first translated, read and sought after by everybody.

"I think the language frequently very inflated, and I quarrel with the principles it tends to inculcate regarding suicide, but great improvement is to be derived from the reading of it.

"I am now in the middle of Zimmermann on *Solitude*, this is really an excellent book, so far as I have read....

"Werter has a beautiful sentiment, 'I am of opinion that more misery is produced in this world by inattention and misconception, than by villainy, or envy.' I shall adopt this for my motto for the future. I cannot travel, I am sure, with a better and more amiable companion."

"What a youngster I was when I set out," he remarks, in another letter; "I had learnt nothing." The very usual estimate of a pupil. What he did in Soane's office, however, had made it all possible. There is a manifest connection between the severity of the training and the results he achieved. The influence of Soane's ideas and attitude towards architecture is more than evident. Possibly it was even too strong, unless we are to attach supreme importance to Barry's Egyptian travel in the broader effect produced by the latter's time abroad. Basevi's range of study seems rather too limited, there was so much that he saw without inward reception, so that, apart from the Fitzwilliam, it would be difficult to differentiate him from, say, Sydney Smirke, and others of the same period. Basevi never acquired Cockerell's marvellous mastery of detail.

He studied modelling with two sculptor friends in Rome, but his father discouraged it, which was certainly ill-advised, especially as George was so shy of detailed measuring and close-at-hand study of actual buildings. Practically he could draw anything, and had a beautiful pencil touch. His is no forced appreciation of architecture; he can never be weary of the Pantheon, the simplicity and grandeur overwhelm him, he feels that no drawing he could make would ever do justice to it. He is filled with admiration for Milan Cathedral and St. Peter's at Rome, and wonders how at first he was disappointed with the latter. This real enthusiasm extends fully to pictures; he spends an hour before Da Vinci's Last Supper at Milan, and is only dragged away because his companion is worn out. He experiences all the usual discomfort of lay fellow-travellers, and parts with them rather than neglect his studies, though he suffers if condemned to live alone. As to his future he feels all the tremors of the aspirant, has "no idea who will employ him," or "how he will ever make his way in the profession." Fortunately, all these fears proved groundless, as a reference to the brief article in the first volume of the *Architectural Dictionary* will show.

That Soane, however, was not backward in aiding his old pupil in establishing himself is shown by the following letter:—

John Soane, R.A., to G. Basevi, Junr., Esq.

25 October 1821.

DEAR SIR,—I am very glad to hear that an establishment is forming, which, I trust from your connections, will give you an opportunity of exercising your talents. Your assiduity in improving yourself in the profession, and the whole of your conduct, whilst with me, was so very satisfactory, that I shall be ready to bear testimony to your abilities, zeal, and integrity.

I am, dear Sir,
Your sincere well-wisher,

JOHN SOANE.

Basevi was then applying for an appointment as surveyor to a fire insurance office.

And in the following year Soane wrote again to help him in another application for a surveyorship. In 1823, "April 3, Thursday, At Office of Works met Mr. Nash and examined Basevi's church for Greenwich." April 5, Write to (name indecipherable) Greenwich, Mr. G. Basevi."

These rough entries in Soane's Note Book prove a very kind and powerful interest in his old pupil's first work. Basevi's grandson still has the subscriber's copy of the gold medal presented to Sir John in 1835.

In the 'eighties, when Alfred Waterhouse, R.A., had the new St. Paul's School at Hammersmith under scaffolding, Professor Roger Smith was taking his students round the highest levels, where the tall turrets were then in hand. Suddenly he made a sign to

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

his party, and they all gathered round. "Gentlemen," he said, with his habitual courtesy of manner, "I do not like to see any one of you on a scaffold with his hands in his pockets, that is how poor Basevi was cut short in his career." Whether it was only the tone of his voice, or whether he actually said any more, must remain uncertain, but the impression left was that a great hope had been suddenly extinguished by Basevi's accidental death at Ely Cathedral, as though Basevi had been in truth a young architect of exceptional gifts and promise, and possibly those who have seen the Fitzwilliam will agree.

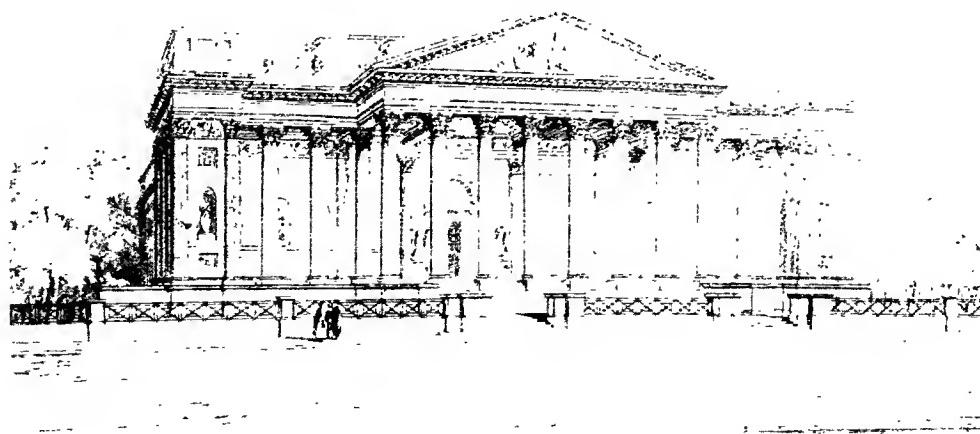
One more curious story was told by Richard Phené Spiers, who said that when he was with Sir Mathew Digby Wyatt, the drawings of the Museum staircase, made by Cockerell to complete the building after Basevi's death in 1845, had come into the office owing to some desire to alter the approach to the basement. Spiers said that they were most remarkable, because, though simple, there was all the evidence of a most refined setting out. Wyatt had thought it was all much too good to alter, and reported accordingly. The authorities were not satisfied, and Edward M.

Barry, R.A., who had then been consulted, swept all Cockerell's work away, replacing it by the present sensational hall staircase, "but," added Spiers, "he was not an artist."

A concluding note may be added on the support given by Sir John Soane and his office to the Royal Academy by the practical test of their exhibited works. Whereas Sir Robert Smirke, R.A., only sent 3 student studies (1805-10) and never took the trouble to exhibit after his election as R.A. (1811), Sir John Soane between 1773 and 1836 contributed no less than 170, and the total for his office is 357, according to the table given, say 527 works in all, so far as they can be traced.

It will be noticed that out of 55 names 31 are exhibitors against 24 who do not appear in Graves's Dictionary of the catalogues of the R.A.

Possibly this slight glance at the education of the young architect, as it was a century ago, may be found to have some present bearing, while the following table, begun by the late, and completed by the present, Curator, should be of interest, and possibly some further particulars of the careers of those given may yet be obtainable through this publication.



FITZWILLIAM MUSEUM, CAMBRIDGE
From a drawing by G. Basevi, Architect

ARCHITECTURAL EDUCATION A CENTURY AGO

APPENDIX

Table of the Pupils, Assistants and Clerks in the Office of Sir John Soane, R.A. (1784-1837)*
 Drawn up by Walter L. Spiers, F.S.A., late Curator of the Sir John Soane Museum,
 and arranged and completed by Arthur T. Bolton, F.S.A., F.R.I.B.A., his successor.

(Fifteen of these names are in the *Architectural Dictionary*.)

Name.	Position in Office.	Years in Office.	Date of Articles.	Exhibits R.A.
ADAMS, J.	Pupil	1806-9	10 Oct. 1806	3
BAILEY, G.	Pupil	1806-37	Missing ..	3
BASEVI, G. (<i>Architectural Dictionary</i>)	Pupil	1810-16	8 Feb. 1811	6
BEDFORD, F. (jun.)	Clerk	1797-8		6
BLANDFORD, Jos.	Clerk	1795-7		Nil
BLOGG, WM.	Improver	1791		4
BURCHELL, S.	Pupil	1823-8	30 July 1823	Nil
BURGES, H.	Pupil	1817-20	26 Jan. 1818	Nil
BURTON, J. (gave up)	Assistant	1805-6		Nil
BUXTON, J.	Pupil	1809-14	16 Nov. 1809	Nil
CHANTRELL, R. D.	Pupil	1807-14	14 Jan. 1807	4
CHAWNER, T. (<i>Architectural Dictionary</i>)	Pupil	1788-94	2 Sept. 1789	12
COPLAND, F.	Pupil	1817-20	Missing ..	Nil
CROCKER, ED.	Clerk	1792		Nil
DAVIS, E.	Pupil	1824-26	Missing ..	6
EBDON, CHRIS.	Assistant	1791		Nil
EDWARDS, F. (<i>Architectural Dictionary</i>)	Improver	1806-10		11
FOXHALI, E.	Pupil	1812-21	Missing ..	1
GANDY, JOS. M., A.R.A. (<i>Architectural Dictionary</i>)	Assistant	1798-1801		111
GOOD, J. H. (<i>Architectural Dictionary</i>)	Pupil	1795-1800	11 July 1795	3
HEATON, W.	Clerk	1786-8		Nil
HIORT, J. W.	Assistant	1822-3		Nil
IVES, G. E.	Assistant	1821-2		Nil
JEANS, THOS.	Pupil	1792-7	25 Aug. 1792	1
LAING, D. (<i>Architectural Dictionary</i>)	Pupil	1790-6	8 Jan. 1790	9
LEE, THOS. (<i>Architectural Dictionary</i>)	Trial (Improver ?)	1810		9
LODDER, WM.	Assistant	1789		Nil
LOUCH, R. (died young by accident)	Clerk	1791-2		Nil
MALTON, C.	Pupil	1802-9	Missing ..	3
MCDOWELL, JOHN	Pupil	1786-91	18 March 1786	Nil
MANSFIELD, G.	Surveyor	1797-1800	20 June 1797	5
MEE, A. P. (<i>Architectural Dictionary</i>)	Pupil	1818-23	23 Jan. 1818	8
MEYER, FRED. (gave up)	Pupil	1791-6	30 April 1791	3
MOCATTA, D.	Pupil	1821-7	1 Feb. 1821	14
MORRISON, R.	Assistant	1791		Nil
NEILL, THOS.	Clerk	1786-93		Nil
PARKE, H. (<i>Architectural Dictionary</i>)	Pupil	1814-20	Missing ..	28
PAPENDICK, C. E.	Pupil	1818-24	4 March 1818	5
PATON, D.	Assistant	1823-30		Nil
PROVIS, H.	Clerk	1791-		Nil
RICHARDSON, C. J. (<i>Architectural Dictionary</i>)	Pupil	1824-37	1824 ..	17
RICHARDS, WM.	Clerk	1789-1803		Nil
ROLFE, W. E.	Pupil	1801-4	19 Nov. 1801	32
SANDERS, J. (<i>Architectural Dictionary</i>)	Pupil	1784-90	27 Nov. 1784	16
SEWARD, H. H. (<i>Architectural Dictionary</i>)	Pupil	1794-1808	30 March 1795	29
SLADE	Clerk	1825		Nil
SMIRKE, SIR R., R.A. (<i>Architectural Dictionary</i>)	Trial (Pupil)	1796-7	Missing ..	3
SWORD, THOS.	Pupil	1799-1804	5 Dec. 1798	Nil
STORAGE, B. J.	Pupil	1804-7	25 March 1806	Nil
TAYLOR, THOS.	Clerk	1792-3		2
TYRRELL, C.	Pupil	1811-16	Missing ..	1
UNDERWOOD, G. A.	Assistant	1807-15		1
WIGHTWICK, GEORGE (<i>Architectural Dictionary</i>)	Secretary	1827		1
WILLIAMS, THOS. (ran away to sea)	Pupil	1790-1	24 Dec. 1790	Nil
WOODGATE, ROBT. (<i>Architectural Dictionary</i>)	Clerk	1788-91	30 June 1788	Nil
			Total ..	357

Note.—24 of the forms of Articles exist, while of the 8 missing it is likely that Foxhall, Tyrrell, and Malton were taken as sons of old friends of Soane. In this list of 55 names in all are 30 pupils, 11 clerks, 9 assistants, 3 improvers, 1 surveyor, 1 secretary. The date of the Articles is in most cases subsequent to that of entry into the office, as there is usually a probationary period of some weeks or longer.

* Sir John Soane started in practice after his return from Italy, June 1780.

The Public and the Architect*

BY THE RT. HON. LORD SUMNER OF IBSTONE, G.C.B., P.C.

I NOTICE that the number of lectures that are being given on architecture at present is increasing, particularly in connection with exhibitions that interest the public—lectures which are given by persons well known in the world, who have the right to speak about architecture. I think I may in justice to myself begin by saying that I did not volunteer to give this lecture, but was asked to do so. You must therefore make all due excuses. I know so little about architecture that I have never even designed a house, let alone built one. For many years I have taken a very great interest in architecture, but I have learnt only in that school, which is open to all of us—a school which is, however, a very instructive one. The Institute of British Architects in which I have sought my diploma has been the streets of London. In walking about the streets one may as well occupy one's eye and mind with something, and here there are splendid examples of architecture, wherever one goes. There is, however, one disadvantage about this mode of study: it makes one more familiar with exteriors than with interiors. You will remember that in *Martin Chuzzlewit*, when Jonas Chuzzlewit took the Miss Pecksniffs to see the sights of London, he displayed a marvellous acquaintance with the outsides of buildings, for nothing was charged for looking at them, but his knowledge of the insides of buildings, where there was a charge of one shilling, was nil.

I am going to assume that you have come here because you are interested in architecture and are keen about architecture, and that most of you are as little expert as I am myself. I suppose there are some architects and architectural students present—I do not know why—but all I can say is that I hope some of them who came here to scoff may perhaps remain to praise. I should like, first of all, to make this point. We, the public, are indispensable to architects, more completely than the public is indispensable to any other artists. The painter, with a modest expenditure upon brushes and paint and canvas, can create his immortal works in his own garret and trust to the future to appreciate them. The musician can cover sheets of music paper at no great cost with deathless compositions, and if he has friends among musicians he may even get them played. Even the sculptor with a barrowful of clay can produce the fruits of his fancy; but without the public the architect can get no farther than drawing-paper. There are so few people in this world who can read a plan, or understand the difference between an architectural elevation and a watercolour drawing of a picturesque building, that, unless the architect can get his buildings built, he gets no farther.

* A Lecture given by Lord Sumner at the Institute on March 21.

The public can and must do its best to create that atmosphere of appreciation without which the architect never gets started at all.

What, then, are our duties? How can we fit ourselves for this high calling—the high calling of understanding the structures that architects build? We must, I think, begin by studying the subject according to our lights, and I take it the first thing to be done is to rid our minds of cant and clear ourselves of sundry fallacies and superstitions which seem to haunt people who write for the public, and, perhaps, infect the views on these subjects of the public themselves. We ought not merely to use phrases like "Architecture must be fit and fine and coherent." We should also get it out of our minds that architecture ought to be either picturesque or conscientious or historical or fashionable. For example, go back to the time when "Queen Anne" architecture was a great discovery and fascinated the uninstructed mind. Prettiness was what was sought for then, and ever since people are dissatisfied with a country house unless it mostly consists of gables, of irrelevant black and white, of twisted chimneys and climbing roses and paths of "crazy" pavement. So, too, in a town people are not satisfied unless a building, except a shop, is hidden behind flourishing plane trees, and no church tower is satisfactory, apparently, unless it is enshrouded with ivy. I think all that is pure fallacy. When you have a building you ought to be able to see it; and if it is not good enough without ivy and twisted chimneys and crazy pavements, it is not good enough at all.

There is another idea, that architecture should be picturesque; and that a picturesque subject is equally effective, and effective in the same way, whether a solid in three dimensions or portrayed on canvas in two. You will hear this answer to complaints of the smoky atmosphere of London: "Oh, but it does make such a beautiful misty effect; when the sun is in the west and the fog is in the sky, see what wonderful results you get." That is quite true, but it seems to be talk about pictures and not about buildings. In certain states of the atmosphere, and at certain times in the evening, the four chimneys at the electrical power station at Lots Road, Chelsea, make a very picturesque picture. Charing Cross Bridge—than which no more hideous thing exists on the face of the globe—can be made picturesque under such conditions. The Gare St. Lazare, in Paris, which I have never thought possessed of any particular architectural merit, has been made to look very picturesque in painting. But in truth it is no test of a good building to say that it looks picturesque.

THE PUBLIC AND THE ARCHITECT

Again, the idea that there is something ethical about architecture should be got rid of. John Ruskin, when in Italy, once got a ladder and put it against a church wall, for the purpose of discovering what was at the back of a horizontal recumbent figure detached from the wall at a height of 30 feet from the ground. After his investigation he wrote with transcendental joy that the back of the figure was as carefully sculptured as the front. What, may I ask, is the particular recommendation about that? Is there any point in putting elaborate workmanship into something which is not intended to be seen? Is the architect who designs a building to be called unconscientious because he economises effort and material and devotes them to the parts which are to be seen? I think not. It reminds me of the conscientious actor who, being entrusted with the part of Othello, at once proceeded to black himself all over! You will see criticisms like this: "A building ought to show from its elevation what its internal construction is; otherwise it is unconscientious." I am not quite sure that I appreciate what this means. If the writer meant that he did not like to see, what we see every day in the streets, namely, three or four storeys and three or four hundred tons of brick-work balanced on the edge of a sheet of plate glass, I agree with him. That is a horrible thing—it is not art; but if he meant that you must show on the outside of your building the interior construction of it, I disagree with him, and I refer him to Wren's Library at Trinity College, Cambridge, which tells you nothing on the outside as to how the building is arranged inside, and with great advantage to the building. Wren's Library seems to me a most interesting instance of successful construction, but no doubt it is unconscientious. Personally, I see no connection between good architecture and the Decalogue. I can quite understand saying to a jerry-builder, "Thou shalt not steal," or even "Thou shalt do no murder," but I see no point in requiring that a building should carry out in its elevation some arbitrary code about its interior moral character.

I think another superstition we should get rid of is that there is some virtue in "Styles"; it seems that nothing can be good if it does not belong to some style or other. That, of course, really means, so far as it is true, that if you design something good you are not likely to get clean away from everything that has been done in the past, for you always owe a good deal to your predecessors; but it is not necessary to be orthodox in architecture in order to be meritorious. Another superstition is that some "styles" of architecture are suitable only for some purposes, and that other styles are suitable only for other purposes. In a sense that is, of course, true; all styles are not equally suitable for all buildings; but people who believe in this superstition go on to say, for example, that Gothic

is a Christian style, and that anything which is not Gothic is not Christian. Therefore, they say, you must not build a place of worship except in Gothic. From this half-truth many architects have proceeded to a flat falsehood. If you want to consider how much care and how much talent can be expended in perverting the Gothic style to purposes for which it is really unfitted, I can recommend you to consider four buildings. Look at St. Pancras Hotel. Certainly it was an expensive one to build. No one knows how much that hotel cost to build, but ask yourselves whether you really like it as an architectural effort. Then go to Piccadilly, and opposite St. James's Church have a look at a shop there which used to be occupied by a delicatessen merchant. There you will find what, I understand, is an adaptation of Venetian Gothic. It is very pretty in its way, but I have never been able to reconcile myself to it. Then go to St. James's Street and look at the New University Club. It is all very well inside, but I cannot help being impressed by the utter unsuitability of the elevation to its situation and purpose. Finally, the Law Courts are full of beautiful work, and in that building a man of genius produced, perhaps, his crowning work, but, owing to the fads of the period when the Courts were built, they were carried out in a style which I have never been able to think is really fit for the particular purpose or for a modern monumental work, on a site where it was extremely difficult to get a view of the completed building as a whole. If, however, you want to see what Gothic can descend to, look at some of Viollet-le-Duc's designs for Gothic architecture carried out in iron framework. Viollet-le-Duc had an elaborate theory that iron, having become a great structural material, was a suitable medium for combining the architecture of the thirteenth century with the construction of the nineteenth, and there are some of his buildings in Paris which fill one truly with pity and fear.

Another point I wish to make is that architecture is not archaeology. There are very excellent guides to the sights of London, but I do not call it architecture to go to see where Dr. Johnson lived, or where Temple Bar used to stand, or where Holbein's Gateway barred the end of Whitehall. That does not seem to me to have anything whatever to do with architecture. In the same way, I do not see that a close study of capitals and mouldings and tracery carries one much farther in architecture, unless indeed one's special job is to carve capitals.

Whatever else you may accept, do not be satisfied to have importations from abroad dumped down here irrelevantly and called English buildings. There are several places in London where houses copied from Amsterdam or Nuremberg are reproduced in the midst of our more prosaic surroundings. Why did not the architects of these houses try to do something different from what they found abroad, and something better?

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

An instructed public, a critical public, a public that is prepared to tell the architect that it knows what it wants and means to get it, must be the foundation of a well-informed clientele. Such a public must do its duty and secure for the architect the conditions that are indispensable to him. There are certain conditions in London without which no architect can do his best, and the first of these conditions is a clear atmosphere. I am a fanatic about this. I maintain that there ought to be no coal smoke in the atmosphere in any city. It is perfectly possible to prevent it, and with economic advantage to the country at large. When the coal strike was in progress a couple of years ago it coincided with a period of fine weather. I shall never forget how from Great Cumberland Place I could see the details of Debenham and Freebody's shop in Wigmore Street. I do not say that London gains very much by being able to see the details of Debenham and Freebody's, but then, for the first time, we saw long vistas, in which, at any rate, every detail was perfectly clear. If that state of affairs prevailed permanently in London, London might be able to place its architects more nearly on an equal footing with the architects of the United States.

Architects must have ample space on which to build. If an architect is to make a fine thing, you must give him a site on which his building can be seen, and is not blocked in afterwards. Go and look at the Admiralty Arch. From the direction of Buckingham Palace you see it in its full details and proportions, but stand by the statue of King Charles I. and you find that each side of the arch is hidden from view. Wren, being unable to carry his scheme for a rearrangement of the streets and alleys of the City, found a way out by devoting himself to the towers of the new churches he built, which are so crowning a glory to London. These steeples can be seen even when the church is in a narrow lane, but, after all, that is a makeshift. The great architect is entitled to space to work in.

I would like to say a word upon another subject which is very controversial. How can street architecture be dignified so long as we have the present system of shop fronts and shop-window dressing? If you have a building which must be designed, on the demand of those who pay for it, to have the maximum of plate glass against which a maximum amount of, say, under-clothing can be stacked (thereby reducing the light inside to a minimum), and if people in the streets so crowd round the windows as to prevent them from being seen at all, we shall, of course, continue to get what we have. While tradesmen insist on writing their names in letters six feet high diagonally across the front of a building, what can the architect do? These demands of commerce banish architecture from our streets; it has to go elsewhere. Go down to the top of Sloane Street, where Knightsbridge goes one

way and Brompton Road another, and look at the narrow promontory which divides the two streets. See whether it would have been possible to construct anything less pleasing to the eye than what you see there. I have no doubt that it is an admirable shop building, and delights the owner, but it is not good architecture. Take the Queen's Hall. That building is on a convenient site, centrally placed, but all the appeal is to the ear and not to the eye, for inside and out the architectural features are hardly worthy of the name. Take, again, the Hotel Cecil. I have no doubt it is an admirable hotel, but what are you to do with a building like that? It occupies one of the finest sites in London; it stands on the crest of a slope; it has the sweep of the Thames at its feet, and alas! this incomparable site is occupied by the Hotel Cecil! Just to the west you can see what the Adam Brothers did with Adelphi Terrace. That shows what might have been done with the Hotel Cecil site, but the opportunity was thrown away; and the Savoy Hotel next door is not much better.

Finally, take Regent Street. Mr. Norman Shaw was asked to design the Piccadilly Hotel with special reference to a style of architecture which might be carried out generally throughout the thoroughfare, and he designed that ground floor of symmetrical arches with a massive rusticated stone base fit to bear the weight of the fine order of columns above it. The shop-window space, however, was restricted, and the shopkeepers objected that the windows were not big enough to show off the pyjamas and the boots and shoes. Norman Shaw's was a most successful attempt to devise a scheme of architecture which might have been fitly carried out in the principal thoroughfares of London, but it was turned down by the shopkeepers, who said that the only thing for them was an iron girder here, and an iron girder there, and iron girders all over the place, and plenty of plate glass to the street. You could, however, have anything you liked above the ground floor.

I think there is only one other condition I have to ask for the architect, and that is, what is called by the lawyers, "a condition subsequent"—the others are "conditions precedent." The architect, as a rule, is not one of those artists whose name is very well known among his contemporaries. In most cases, he has to face the fact that he practises his art awhile, and is forgotten almost as soon as he is dead. I would like to see the fame of our best architects protected, not from mere sentimental or archæological reasons, but for the sake of the great works of great men. Buildings are supposed to be more imperishable than other forms of artistic effort, yet think how rapidly in London architectural works pass away, and how even in the country they survive more by accident than because of their artistic merits. At this moment Croydon is ardently

THE PUBLIC AND THE ARCHITECT

desirous of sacrificing a beautiful architectural work for the sake of the "joy-riders," who find that their ride through Croydon on a Sunday morning is not so direct as they could wish. In my time immense tracts of London have been torn down, and some buildings have been torn down a second time, because the all-conquering demands of commerce will have it so. Walsingham House, at the corner of the Green Park and Piccadilly, was a very successful building, but within a few years from its erection it came down to make room for the Ritz Hotel. Numbers of fine buildings in London are now coming down because the money to keep them up is lacking, and sites have to earn their own living. I think we ought to have more consideration for fine buildings as such. The architect writes in stone the social history of the age in which he lives, but, unfortunately, as social habits change, his work becomes obsolete. Ordinary houses of the eighteenth century, and many buildings of the Victorian Age, although by no means bad buildings, are vanishing fast because lifts have been invented and housemaids will not live in houses where there are no lifts. These two circumstances will bring about the result that before very long whole tracts of London will have disappeared—a gorgeous opportunity for the next generation of architects, no doubt—but I would like to see a trained public opinion grow up before that opportunity comes upon us, and I would like to see the best buildings of the past preserved for the sake of their builders and of art, even without lifts and in defiance of housemaids.

What ought we to look out for when we look at a building and put to ourselves the perfectly proper question, "Do I like it?" To jeer at a man who says, "I know what I like, but I know nothing about art," is not a well-informed criticism. If you like something and know why you like it, you make a very good beginning as a critic, and I strongly hold that the right thing to do is to look at a building long enough to know whether you like it, and finally to analyse your thoughts and explain to yourself, "What is it that is wrong with this building?" or "What is it in this building that I like?" I believe that the great key throughout is proportion. A work of art to be fine must be in proportion. A disproportionate work of art is condemned on the face of it. I do not think that for laymen there is any answer to this problem. The knowledge of what an art consists in must be a special thing for the artists who practise it. A musician is not simply occupied in making dance-tunes; he is weaving his thoughts into a theme of his own, which other musicians grasp, but the public only imperfectly understands. I presume it is the same with buildings. The thing the architect is aiming at in his mind is something that is probably unperceived by the most attentive public, but, I think, we may all appreciate

his effort to proportion the different materials, which the nature of his building compels him to introduce. I believe that when you have made up your mind whether a given thing is well-proportioned or ill-proportioned, you have as nearly as may be, arrived at the answer whether it ought to be pleasing to you or not. London does not give the architect the proper opportunity, that he ought to have for a finely proportioned work; and London does not give him that opportunity, for the reason that money does not permit it. As a town grows under new conditions, sites become increasingly precious and streets more and more busy, and there is an inevitable tendency to lay out building sites as deep rectangles with narrow frontages. This is because the access of light is from the front, and the front is the most valuable part of the site. What is the architect to do, if he is always given a deep rectangle with a narrow front on which to build? His elevation becomes like a domino set up on edge; all he can do is to arrange the dots on it to suit his client. There is not much room for choice, because every house must have a front door (and in most cases a porch); it must have one or two windows to the right of the door, and three more windows above; then more storeys like the ground floor; then the cornice, and then a roof which can sometimes be seen and sometimes not. All the architect has to do is to ring the changes on the windows and the doors and the porch. Much, however, may be done even under these conditions. A number of houses have recently been refaced with stone in Upper Grosvenor Street, for example, where very interesting problems have been solved. Much can be done by slight alterations in mouldings, etc., to make a building well balanced. The architect, however, does not get much scope in elevations, and when he comes to his plan the same difficulty arises because of the narrow frontage and the deep site, where light has to be borrowed and where the design lands up in squalid quarters at the back. Another result of this commercial condition of things is that buildings are always being squeezed upwards. There is always a tendency to go higher in a city which is rebuilding its dwellings or business premises. The result is that the buildings get out of proportion. The restful balance which is got from long horizontal lines in a comparatively low building disappears and is replaced by the strained effect of a high building. I do not think the great changes that are now taking place can be satisfactory so long as this process is going on. Look at Kingsway. There is much good work in Kingsway, but there is also much that is bad. There are several fine pieces of invention in Kingsway, but they are all carried up to a disproportionate height and are so far unsatisfactory.

In London we insist on straight lines for everything, and everything is rectangular inside and out. What a

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

very small number of curves there are in the streets of London ! A crescent, a circus, an ellipse may be found occasionally, but they are rare. Piccadilly Circus has long ceased to be a circus because one-third of it has been cut away. Oxford Circus has been built so high that one hardly notices that it is a circus at all. The most complete circus I know of in London is Seven Dials ; that is a fair example of a perfect circus, but how poor it is in comparison with the Place des Victoires in Paris. If you want a good crescent you have to go to Bath or Buxton for it ; there are very few in London. One of the finest effects of this kind I have seen recently is the eastern half of Aldwych. There you have a great series of fine columns on each side, and if it were not for a peculiarly deplorable building at the western corner of Kingsway, which appears to wear a tin hat, one might say that this crescent had a fine architectural effect. Indoors our rooms are always made rectangular, probably for the reason that carpets are sold square. I have lived in an elliptical room with very great satisfaction, and, I think, it is very much to be regretted that we do not have these features more frequently. Again, I do not think there are more than half a dozen good domes in London. How much we throw away by this devotion to one geometrical form—the rectangle !

There is another matter which I want to say a word or two about—materials and ornamentation. What can you do with materials in the way of external effect so long as the atmosphere is sooty ? People have tried to get round the soot question by building with pottery. Doulton ware has a nice “ oatmeal porridge ” colour, but it wants washing from time to time. Others have tried to get the effect with glazed ware, and Mr. Clynes has recently held out the prospect that we might all have glazed china covering the outsides of our houses. Terra-cotta has been tried, as on the Prudential Building in Holborn, and on Frascati's in Oxford Street, but, apart from its blood colour, this material does not satisfy all tastes, and you always feel that it is only used to dodge the effects of soot. Two other devices with the same end in view are stucco and cement. An example of a cement fronted building is to be found in the Great Western Hotel at Paddington, of which all I will say is that cement as an architectural material leaves a great deal to be desired. Stucco, however, has its defenders. I remember reading a lecture by a professor of architecture who, in defending stucco, said that from a distance, when it was freshly painted you would see in it the bloom of a fine May morning. I agree, but although it may retain these beauties for, perhaps, three or four days, after that it becomes streaky and dusky. Every two or three years it has to be painted, and when different houses are painted at different times, you have a spectrum of graded squalor which is deplorable. If we could only

get a clear atmosphere we could build in stone, which is the best material of all, and we then might hope to get satisfactory architectural effects.

To a great many people ornament means architecture and architecture means ornament. They are interested in traceries, capitals, and so forth, and they like long pilasters with fine low-relief carving which has to be seen close up in order to see that it has been carved at all. Ornamentation is only dressing up when all is said and done. No ornamentation will turn an ill-designed or ill-proportioned structure into a fine building, and a finely proportioned structure shows its proportions all the better for having its decorations kept down to a minimum. To please the public we have quantities of buildings on which decorations are hung at the last moment. On the building which occupies the site of the old Westminster Aquarium there have been hung swags of very rich and ripe—if not rare and refreshing—fruit, which give one the impression that the architect had got something left in his bag, and felt that he must get rid of it before he went home.

There remains the question : “ What has the architect got to do for the public ? ” When we have gone to the trouble of educating ourselves, and have succeeded, what will the architect do for us ? It is said that every country has the Government it deserves, and I sometimes wonder whether we have got the architects that we deserve. That, of course, may be taken in two senses ; for the Government or the architects referred to might be better than we deserved, so you will see that I do not wish to reflect on architects. If, however, the public deserves good architecture, it is the business of architects to give us their best. No architect should ever permit a client to override his artistic conscience. He should refuse to be driven into hideous designs or ill-proportioned shapes or pretentious decorations simply to please the person who is going to draw the cheque. I am reminded that Whistler, when complained of by one of his sitters for arbitrarily altering a picture after it had been sent home, said, “ You don't think the picture belongs to you just because you have paid for it.” Believe me, the architect should have the freest hand to do the best that is in him. Architecture is said to be the queen of all the arts, and I hope the day is not far distant when the signs of improvement that we see around us now will place English architecture where, from time to time, it has earned the right to be. This land has had great architects century after century. Even the Victorian Age, in spite of the Houses of Parliament and the Victoria Tower, had its great architects. We have great architects among us now, and I trust in the next generation that their works may be written large on a rebuilt London.

Small Houses of the late Georgian Period*

A. TRYSTAN EDWARDS [A.], M.A. OXON.

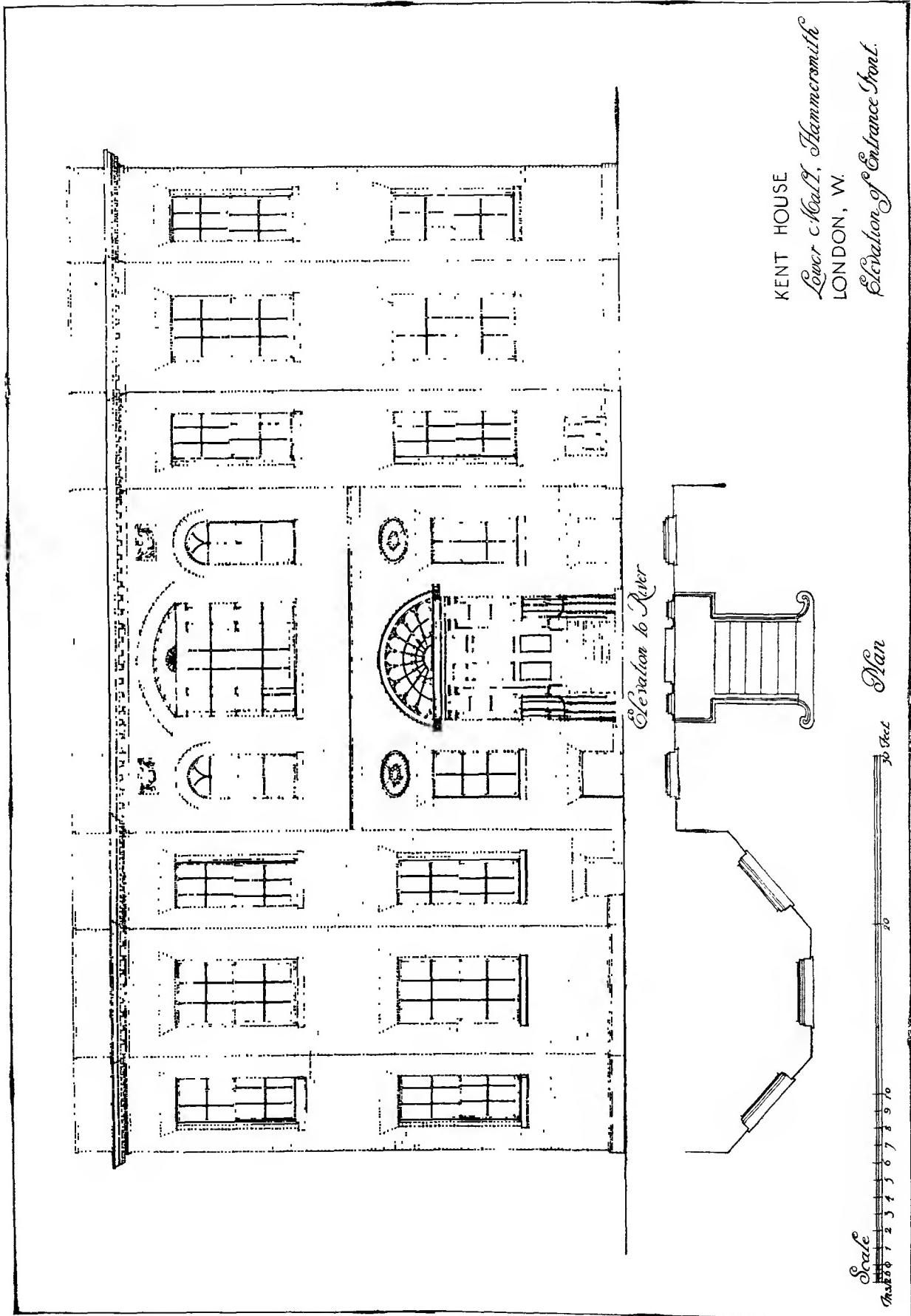
IT is the special virtue of this volume and of its admirable predecessor, which portrayed the exterior of the small house of the Georgian period, that they deliver architectural research from subservience to historical or archæological aims and make it the instrument of a propaganda valuable and important on account of its strict relevance to modern practice. Mr. Ramsey's labours have been constructive, for he has devoted himself to the study of a period of domestic architecture from which, of all others, we have most to learn, which is the best corrective of everything reprehensible in latter-day tendencies. Yet the essential modernity of the "Georgian" style should be widely recognised. If we do not derive full benefit from this tradition, the failure will certainly not be justified by the extremely disputable assertion that such a manner of building is unsuitable to our present social circumstances. It would be difficult to pick out a single architectural feature illustrated in these two volumes which is not expressive of refinement allied with vigour and common sense. The sedate and comely forms of the exteriors are a perfect embodiment of the social spirit. They belong to the community, they are born of the discovery that in domestic architecture individuality is most securely established when houses defer to a common cultural standard. Yet these houses are all different from each other. Their variety is endless and most surprising. Moreover, the variety has character and interest because it is founded upon discipline. The buildings are *aiming* at uniformity, but they achieve diversity. The designers of many of our modern villas, however, aim at diversity, but they achieve monotony, not only a monotony of spirit but an actual formal monotony, for the variety of the nondescript makes no more impression upon the mind than does a heap of stones all cut fortuitously to different shapes.

It is notable that much of this "Georgian" architecture can still be found in very many English towns, and the building activity of the period must have been prodigious. We recognise the style immediately wherever we see it, for who can fail to be impressed by the innate distinction which even the most obscure eighteenth century builder seemed able to impart to his work. What were the main characteristics of these houses? Parapet walls, low roofs, a general rectangularity of outline, flatness of façade, an orderly arrangement of windows—these would appear to be necessary

to the effect desired, and they undoubtedly secure the general harmony of the houses with each other and their uniform deference to the street as a whole or to any public buildings which may be in the vicinity. Their lack of gables and fussy protrusions helps them to become part of a larger artistic entity, while the domestic quality is shown in their reticence, in their apparent determination never to ape the architectural splendour or individuality of form which is befitting to structures of greater social consequence. But within the limits here indicated what subtleties of composition do we not find, what genius in the arts of decoration! Doorway, window architrave, cornice, baluster, fireplace, staircase, ceiling—in fact, all the details of a house seemed to have been designed with unerring judgment.

In popularising the style of the Georgian era by collecting examples of it for the edification of members of our profession Mr. Ramsey is performing a notable service to architecture. That he is himself a distinguished practitioner of this style is evidence of the strength of his convictions. There are, however, critics of the particular architectural movement in which he is taking part, and in order that they may be the more effectively combated I am venturing to offer a suggestion with regard to a certain habit of phraseology which sometimes creates a prejudice against the revival of any of the forms of building invented by our eighteenth century forefathers. I propose that the style should cease to be called "Georgian." The point at issue is this. If we call it "Georgian" there are sure to be objectors who will tell us that it belongs definitely to the past and should now be put away. But although the style is of a date before the industrial era, its qualities should not be held to be unattainable by us, unless we are to confess that urbanity and good manners in building belong essentially to a bygone age and that we can never recover these virtues for the architecture of the present and of the future. That is an unpleasant prospect—vulgarity to-day and vulgarity to-morrow! Let us analyse this term "Georgian." The first thing to be noticed is that it is not an architectural term at all and therefore has no legitimate place in the vocabulary of architectural criticism. The term has been found useful because it has power to call to the mind certain qualities of building, but it wrongly connects them with a certain limited period of British history. The qualities, however, ought not to be related to history but to philosophy, for they were the product of that devotion to reason and propriety which earned for the period the description "the logical eighteenth century." In the Georgian era the attribute of urbanity

* *Small Houses of the late Georgian Period.* By Stanley C. Ramsey and J. D. M. Harvey. Vol. II. The Architectural Press. 25s. net.



AMERICAN HOSPITAL DESIGN

in domestic architecture was more clearly expressed than at any other time. Let us, then, call this style not Georgian, but *urban*. The advantage of adopting this terminology will be immediately apparent, for we shall be enabled with complete freedom and confidence to endow our buildings with urbanity and at the same time to be invulnerable to the critical shafts of those who would shout "copyist" or "plagiarist." The style is distinguished by certain qualities of restraint and cohesion which enable houses to give artistic expression to the fact of their assemblage in a town. These qualities happen to have been previously analysed and actually manifested in a very large body of architectural work which stands to the credit of our forefathers of the eighteenth and early nineteenth century. We cannot in reason forgo our heritage of their intellectual victory any more than a mathematician can decline to take advantage of Napier's theory of logarithms on the ground that the theory is several hundred years old. If a man of to-day studies the same problem that Napier set himself, and has the necessary mathematical ability, he will arrive at a result similar to that of Napier. And if we study the problem of how to endow urban architecture with its appropriate character, we shall inevitably find ourselves again creating conventions of building which will cause our work in some essential respects to resemble that of the Georgian era. There is plenty of scope for novelty of plan owing to the constant revision in the standard of accommodation which may be considered requisite for modern needs, but the continuity, the dominant rectangularity and the sense of order which should distinguish the forms of urban houses cannot be dispensed with if the social spirit is to receive its proper affirmation in the architecture of to-day.

Mr. Ramsey's second volume is chiefly devoted to the interiors of eighteenth century houses; and while the detail shown is exquisite and worthy of the closest study, it has a greater element of particularity than has

the urban convention which determines the arrangement of a whole façade or building. We cannot say with regard to it that it represents a final solution of any one architectural problem. A house can have the true urban quality and yet be almost bare of detail or be elaborated with ornament which, although belonging to the Classic tradition, is yet a variant from the decorative motifs characteristic of the Georgian era. These motifs, however, are of very wide range and provide a repertory of ornament consistent with itself and extraordinarily well adapted to the suitable emphasis or enrichment of all the features of a house. At a time when the appearance of our cities is undergoing a swift change, and in most instances a change for the worse, it would seem to be more necessary to concentrate effort upon formulating the principles and policies which have to do with the conservation of the main civic proprieties, the big things of architecture such as the dignified arrangement of streets, and the nice adjustment of the degrees of prominence which various types of building, public, commercial and private, should be allowed to assume in the configuration of a town. Mr. Ramsey has made it easier for us to devote ourselves to such objects, by showing that, as far as detail and ornament are concerned, there is an excellent source of inspiration in the work of our Georgian forefathers; and by drawing upon this source we have at our disposal a cultivated architectural dialect, essentially English in character and capable of being used with simplicity and distinction. And those who share his preference in this matter will at least reap the reward of having their burden considerably lightened as far as one element of it is concerned, and will have just as much additional energy for coping with the larger problems of design.

The Architectural Press is to be congratulated upon the excellence of the production of this volume. Mr. Yerbury's photographs have an extraordinary clarity of detail, and Mr. Harvey's measured drawings will also be a most valuable aid to the student.

American Hospital Design

WILLIAM A. PITE [F.]

HERE is nothing so exhilarating in our professional calling, or so fascinating, and with so many varying interests, as to observe and patiently study the manner and methods which our professional colleagues adopt in solving and giving effect to those problems which perplex us in our daily practice. As in the making of books there is no end, and in the reading of them much vexation often to the flesh, it is refreshing to be brought up against

actual requirements set forth in orderly and defined method.

Endless variation of the simplest requirements, based upon practical necessity, are the daily lot of the architect, and of the hospital architect in particular. It may be said that in no other branch of architectural practice is there such an array of technical considerations and such definite knowledge of administrative requirements necessary as in hospital design. This

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

section of practice has been exemplified in a very remarkable degree in the December number of the *Architectural Forum*, of Boston, Mass., which is what is termed a Hospital Reference number. This bulky quarto of sixty pages is profusely illustrated with photographs, plans, and other details, and is set down in the midst of one hundred and seventy pages of practical illustrated advertisements of hospital requirements of much interest and very suggestive, and, apart from the subject matter under review, deserving of more than passing notice.

A foreword by the Editor fittingly introduces the subject under consideration, both with regard to the position of the hospital and to its architect. "Perhaps," he writes, "the most interesting fact is that the hospital building has passed for ever out of the class of grim ugly structures representing the dire necessities of communities and into a class of important institutional buildings, requiring a definite architectural expression and design." Every sectional problem has been assembled and discussed in fifteen essays, voluminously illustrated, and exhibiting a fine array of recent exteriors which are of remarkable and abiding interest and of real architectural value. Architectural development, directness, and simplicity are all here, and for these admirable qualities we offer our American colleagues our admiration and thanks. With but one exception the essays are by architects and engineers connected with actual hospital service, each dealing with a particular phase, which will be referred to later. The exception is that of an eminent medical man, Dr. S. S. Goldwater, the well-known hospital consultant and director of the Mount Sinai Hospital, New York, who contributes the second essay, entitled "Preliminary Survey of Hospital Design."

He is the leader of this hospital "opera," setting the tune in an essay of remarkable interest and interrogatory in character, which to the initiated is most thought provoking. A paper of this far-reaching character should be in the hands of all hospital authorities and architects about to inaugurate building procedure, and it is to be hoped that this essay will be separately printed. Within the space of a brief three hundred and seventy lines are set forth in a masterly and lucid manner the fundamentals essential to success

Read in terms of English needs, and apart from the extreme climatic conditions of America, we find much to profit by. The case so brilliantly expounded calls for earnest consideration and study. Nothing escapes Dr. Goldwater from his eyrie at the Mount Sinai Hospital. If his most suggestive notes are taken as a guide the skeleton at least of a practical hospital building programme can be prepared. The architect is entitled to complete data if he is to plan a hospital building that will meet the needs of the institution. Elements of a programme therefore are essential.

Many propositions are often unreasonable—and this generally ensues without any intention on the part of promoters: but it is a prevailing difficulty with which hospital architects have to contend. The lack of exact knowledge is mostly due to questions of cost. There is a popular idea, which is a fallacy, that it is possible to estimate and regulate requirements by the cost per patient's bed, but a little reflection will show that this is a very misleading idea. Classification is necessary, not only of beds but also clinically and socially. Ward services are also changing by the introduction of the system of private paying patients. This results in sick wards being classed as wards general, semi-private, and private. Naturally, there is much to commend in this, but obviously it has a wide bearing on the characteristics of the plan and administration. Again, planning for the immediate needs seems to be the prevailing and primary necessity, but publicly subscribed funds have to be expended for posterity, so that the value of benefactions which usually are memorial in character should not be lost.

This brings us to consider the problem of necessary expansion and developments which the claims of time and science are bound to bring. It is a short-sighted policy to forget this, and the scheme should be elastic and afford liberty for future action and advance. New characteristics are always present—co-ordination therefore is of first rate importance. A danger must, however, be indicated: departmental requirements are constantly left to the direction of the titular head of this and that particular section, and the resulting plan is more or less a reproduction of his personal proclivities, excellent, no doubt, in many respects. This defective procedure results very often in extravagance of space and lack of consideration for the demands of the future. It is, however, most essential that the accumulation of the necessary requirements should be definitely secured, but such data should be debated collectively and corporate results obtained. The assistance of a skilled director is desirable, as it will be found that experienced consideration of time service, and by joint use of several departments, co-ordination may produce efficient planning to meet the whole need of each section departmentally, and will result in an economy of space and expenditure.

In stating this we have in mind the usual general medical surgical and kindred departments. There are, of course, other highly specialised departments which must be wholly devoted to a single service. These and other relatively cognate problems Dr. Goldwater handles with discriminating insight, and it amounts to this, so far as we are concerned, that the hospital architect needs defined expert guidance, and consequently hospital methods must be known and administration appreciated. Differentiation must be made in the treatment of the community hospital and

AMERICAN HOSPITAL DESIGN

the teaching college hospital—manifestly this is bound to influence the plan.

The assembly of essays accompanying that of Dr. Goldwater ably set forth in detail the varying issues which architect and engineer have to supply in giving effect to the programme Dr. Goldwater's preliminary survey demands. The internal planning of nearly all of the establishments described, and illustrated so excellently, we are bound to say would not be acceptable to our hospital ideals. The value of these essays lies in their wide suggestiveness. The same criticism would be equally applicable to the planning of most Continental hospitals, those of Germany in particular. Climate and social conditions both have a part in this, but this in no way lessens our appreciation of the work and of the real value to us, as architects, of studying other methods and practice. But it is the great variety of other views, opposed as they may be to settled convictions and the demands of advancing science, that will yet yield surprising results in fields of similar research. It may seem paradoxical, but it is none the less a fact, that in the study of ill-arranged schemes of necessary requirements will be found the germs of real advance, because in institutional work, such as that of definite hospital services, the root of the matter is to be found there, although it may be provided in a clumsy and undesirable way. This, however, is not the case in the subject here reviewed. Thoroughness of conviction is stamped upon every page, founded upon experience and knowledge, and is set forth in a manner not hitherto attained in this country.

Mr. Richard E. Schmidt, whose book on hospitals we have in our Library, provides the opening paper, upon "Hospital Design," and gives a general survey. After insisting upon the importance of a definite *modus vivendi* for both present and future he gives wise and illuminating guidance. "It is well-nigh," he writes, "impossible to carry on in an unsuitable building." The importance is urged of elasticity in plan, of the technique in regard to the enlargement of housekeeping services, and of keeping in mind the original scheme, with the consideration of the possibility of conversion in the future. We note with pleasure the growing desire to simplify fittings, the elimination of supporting legs and of concealed overflow channels. Bath tubs are, we are assured, useless; shower baths taking their place as saving space and being more sanitary. A hotel atmosphere is advocated, objectively to be attractive to the eyes and minds of the patients and a happy compromise suggested between the rigidity of simplicity, leading to little objection being taken to the projecting architrave, etc. The reader will find some surprises both in description and illustration in this interesting series. One instance may be quoted for novelty. Single sick wards will be found arranged to have every auxiliary service, making each room into a

complete unit, with the full equipment usually provided for a section; self-contained, each room being provided with its own toilet and a swing water spout to function as a slop sink, a bath tub or shower, medicine case, bed-pan rack, refrigerator for food or specimens, cabinet for extra linen, clothing, private porch, etc. Food service, either connected to a service storey or basement by dumb waiter, etc., etc. This method is illustrated in the collection in several plans. The foregoing will give some idea of the wide view taken. But even in the keen advocacy of such extreme views there is much wisdom elsewhere, as the possibility of converting parts of the original units to other uses should be studied during the progress of the original drawings. Mr. Kendall Taylor deals with the development of the site in a thoroughly useful way, and he is followed by Mr. Edward F. Stevens, whose books are so well known to us and who has a wide reputation as an exclusive hospital consultant, dealing nearly exclusively with hospital work. Mr. Stevens discourses on the details of the planning of general hospitals in a manner which is full of interest. The unit, he rightly urges, is the patient; from him everything must radiate.

What does the patient need? He must be warmed, fed, cleansed, provided with clean linen, etc. Indeed, in every drawing the procedure concerning the patient must be visualised. This essay is one which sets forth in a very clear way American hospital practice, which will repay close study, and to which attention can only be called in passing. Other well known workers deal with such useful subjects as special departments, essential equipment, finish and decoration, prevention of sound travel, heating and ventilation, plumbing, sanitation, and electrical installation, while construction and cost and housing of staff all have their claims and needs set forth. The series ends with a paper on the small community hospital. Some of the buildings are high, having as many as nine storeys, as well as low buildings of city and country, each presenting varying problems. External expression has to be given to the great city hospital and community hospital, while cottage hospitals are not neglected.

Following the Crimean War—an epochal period in hospital design, which gave us, under the inspiring influence of Miss Florence Nightingale and Captain (afterwards Sir Douglas) Galton, the great Herbert Hospital at Shooters Hill, Woolwich, giving us the pavilion principle of layout—hospitals assumed a somewhat correctional aspect; that aspect happily is rapidly passing away, and hospitals now more fittingly rank with our worthy public buildings.

In this our American colleagues are leading, and giving us most admirable examples. No architect can look at the buildings here illustrated without pleasure and admiration.

Presentation to Mr. Paul Waterhouse, M.A., Past President

IN the presence of a large and representative gathering at the Royal Institute of British Architects, on Monday, 23 July, Mr. Paul Waterhouse, P.P.R.I.B.A., was presented with an illuminated address in recognition of his services as President of the Institute during the past two years.

Mr. J. A. Gotch, the President, was in the chair, and among those present were Sir Aston Webb, P.R.A., Sir Reginald Blomfield, R.A., Mr. John W. Simpson, Mrs. Waterhouse, Mr. Michael Waterhouse, Professor Beresford Pite, M.A., Sir Banister Fletcher and Lady Fletcher, Professor W. R. Lethaby, Major H. Barnes, Professor C. H. Reilly, and Messrs. G. Gilbert Scott, R.A., John Slater, Edward P. Warren, T. R. Milburn (Newcastle), W. G. Newton, H. T. Buckland (Birmingham), Maurice E. Webb, Lewis Solomon, Percy Thomas (Cardiff), G. C. Lawrence (Bristol), W. A. Pite, H. D. Searles Wood, Delissa Joseph, Alan Munby and Mrs. Munby, J. Stockdale Harrison (Leicester), Francis Jones, H. V. Ashley, Walter Cave, H. Austen Hall, E. Stanley Hall, H. V. Lanchester and Mrs. Lanchester, H. Charlton Bradshaw, Max Clarke, W. Gilbee Scott, Herbert A. Welch, Herbert Shepherd, Frank Woodward, A. G. R. Mackenzie, H. M. Fletcher and Mrs. Fletcher, W. J. H. Leverton, and Ian MacAlister (Secretary).

Letters regretting inability to attend were received from:—

Mr. Edward T. Boardman [F.], President Norfolk and Norwich A.A.; Mr. G. Topham Forrest [F.]; Mr. W. Curtis Green, Vice-President R.I.B.A.; Mr. A. W. Hennings [F.]; Mr. L. Kitchen [F.]; Mr. Eric Morley [F.] President Leeds and W. Yorks Arch. Society; Mr. Percy Morris [F.], President Devon and Exeter Arch. Society; Sir Wm. Portal [Hon. A.], President Hampshire and I. of W. A.A.; Mr. James A. Swan [F.]; Mr. James R. Wigfull [F.], President Sheffield, etc., Society of Architects; and Mr. W. S. Purchon [A.].

In opening the proceedings the President (Mr. J. A. Gotch) said they all knew that they had met for the most pleasant purpose of giving an expression of their appreciation to Mr. Waterhouse for the excellent manner in which he had fulfilled the duties of President. His remarks would be made later when he presented the address: he would meanwhile call on Mr. Arthur Keen to speak as to the purpose of the meeting.

Mr. Arthur Keen (Hon. Secretary) said that those immediately concerned in that meeting were those who were members of the Council of the Institute over which Mr. Waterhouse had presided during the past two years, and the Presidents of the Allied Societies. They would, perhaps, regard him (Mr. Keen) as the chief conspirator in the matter, but he did not mind that, and he confessed he was one of a band of conspirators two years ago when a presentation was made to the then outgoing President, Mr. Simpson. At that time it was seriously declared that what they were doing should not be regarded as a precedent, but he

did not say that he shared that view, for he felt they should leave it to the future to do what was right and proper under the particular circumstances of the occasion. They felt they could not let Mr. Waterhouse go with merely a word of thanks. They wanted to express in written words what they had to say to him, and with the help of Professor Pite and Miss West, they had produced a document which would be handed to him by the President. They wished to go even further than this, and in order to make the occasion more worthy of its subject one of them had suggested that as Sir William Orpen was painting the portrait of Mr. Waterhouse, to go with those of other Past Presidents in the Common Room, it would probably gratify Mr. Waterhouse and his family if a replica of that portrait could be presented to him. Sir William said he was quite prepared to produce, in due time, a copy of the portrait—that was, a copy finished by Sir William's own hand. So they hoped to present Mr. Waterhouse with a copy of the portrait later on. If Mrs. Waterhouse were as pleased with that replica as they would be pleased to have the original, he thought they would have done very well. Proceeding, he said it was not the qualities most apparent in a man which were always most important. They knew very well Mr. Waterhouse's delightful speeches and the manner in which he had conducted the affairs of the Institute. But, above and beyond these, it seemed to him that the most important characteristic of Mr. Waterhouse was his unfailing belief in the Institute and what it was capable of, and he (Mr. Keen) did not think he could please him more than by assuring him that he had contributed in very large measure to the influence of the Institute and to the increase of its prestige. If he might be allowed to speak on behalf of everyone present, he would thank Mr. Waterhouse very cordially indeed for all he had done for them.

Mr. T. R. Milburn [F.], President of the Northern Architectural Association, said he hoped that in what he said that afternoon he would make up for his lack of eloquence by sincerity. Mr. Paul Waterhouse had, he said, made his name honoured in the provinces by the respect and esteem they all had for him, and, although he had had no opportunity of speaking to the other societies, he felt sure that what he said that afternoon would be endorsed by them. He could sincerely say, without any disrespect to the dead or living, that no President had ever done more for the provinces in the way of bringing them into touch with the Institute. The way in that direction was paved by Mr. Simpson, their previous President, and Mr. Waterhouse, during his two years of office, had cemented that feeling. As to Mr. Waterhouse's work for the Institute, he had attended conferences in all parts of the country. Mr. Waterhouse had been present at conferences, dinners and other gatherings at Edinburgh, Newcastle, Leeds

PRESENTATION TO MR. PAUL WATERHOUSE

York, Sheffield, Manchester, Leicester, Bristol, Birmingham, Cardiff, Liverpool and other places, and they should consider what all that meant to him—the loss of his valuable time. One had to put one's work on one side and make long train journeys. All they had to say to Mr. Waterhouse was "Will you come down to our annual dinner," or whatever it was, and he would reply, "Yes, of course, it gives me very great pleasure," and his acceptance was given in the same good spirit to all the provincial societies. As a member of the Council for two years he paid his tribute to the fair chairmanship of Mr. Waterhouse, and as a member of the Institute he thanked him for the splendid speeches he had made. Their best wishes also went out to Mrs. Waterhouse. They esteemed Mr. Paul Waterhouse as their Past President, as an architect, and as an English gentleman.

The President said the duty devolved upon him of presenting to Mr. Waterhouse their first instalment of their token of appreciation of his conduct in the chair, and he did so with the very greatest pleasure. They all felt that during the last two years Mr. Waterhouse had filled the chair with the greatest tact, courtesy, fairness and judgment. It was not only they, as architects, who had been struck by the eloquence of Mr. Waterhouse's orations, but he had heard those orations spoken of with the greatest wonder and delight by gentlemen who were entirely outside the Institute. Mr. Waterhouse was scientist enough to know that icebergs were only seen on the surface of the water, and that the bulk was underneath, and this analogy might be applied to their feelings towards Mr. Waterhouse.

The President then handed to Mr. Waterhouse the illuminated address, the text of which was as follows :—

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Dear Paul Waterhouse,—Your colleagues, who are all your friends, wish by this document to record the sincere pleasure that you have given them during the past two years of your Presidency. The chair of the Institute has acquired a new distinction by your addresses ; the amenities of professional contact have been increased by the wisdom and grace of your conduct of business ; our conviction of the high aim of the universal but complex art of architecture has been strengthened by the eloquence and dignity of your appeals to the students ; and we have been charmed by the lambent humour with which your scholarship has been illuminated.

For these particular advantages, which you have as our President conferred upon all the concerns of the Institute, and for the maintenance of the high professional tradition of your father, whose memory is so strong and valued, we hereby offer to you this testimony of gratitude and affectionate esteem.

[Then follow the names of about seventy signatories, including members of the two councils over which Mr.

Waterhouse had presided, and of the Board of Architectural Education, of which he had acted as chairman, and by the Presidents of the Allied Societies in office during the same period.]

Mr. Waterhouse, in reply, said : I am more embarrassed than I have ever been before in this familiar room, and confess myself much moved by the discovery that there are among this company so many faces of friends who belong to other centres than London. So many also of those who, like myself, have been associated with councils long previous to those of my presidency.

The words which have been offered to me by way of written and spoken praise are strangely beyond my deserts, but I am sufficiently capable of vanity to be greatly pleased.

You, Mr. Gotch, as an adroit chairman, know how to do the courteous thing in the courteous way, and your colleagues (including the two spokesmen, Mr. Keen and Mr. Milburn) do not fall short in that delicate exaggeration which is the fine polish on the breastplate of good manners.

I am willing to meet you gentlemen by not listening too obediently to the voice of conscience, a voice whose record is indeed far short of yours ; but, however, I strike the average between conscience and the verdict of reasonable indulgence. I cannot find a measure of valuation for my services which comes anywhere near that which is prevailing in the speeches and other utterances this afternoon.

This discrepancy is partly to be accounted for, I believe, by the prevalence of an element which is a notorious perverter of truth ; an element which, if I must not call it affection, is at least as high as friendship. Indeed, gentlemen, if I may judge from the counterpart, so to speak, in my own keeping, I should like to claim that the bond which unites us is certainly nothing colder than the latter term implies.

In accepting a fraction of your flattering words and the whole of your good wishes, I am bound to make two admissions.

The first is that when the men in this room and others who are friends of theirs sent me forth on my little voyage of presidency, you did so with words which were evidently words of confidence. I treated them as such, and have relied all the time on the thought that I had that confidence behind me. I determined to fall back on it if it were ever needed, and to endeavour never to abuse it.

The second admission is one so often made that it sounds hackneyed, but so full of truth in this case that to omit it would be a grave injustice. Like any chairman of any shareholders' meeting, I make the time-worn statement that words cannot express what the officers of our Institute owe to the staff—but I do not make it as a formality. The services of Mr. MacAlister are not only difficult to value, but they are of such a nature that I do not suppose anyone but the President

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

and the Hon. Secretary for the time being can have full knowledge of them. No President could well be a successful President without ever willing aid from the holder of Mr. MacAlister's post. He is well backed up by the Assistant Secretary and the Secretary of the Board of Education—Mr. Evans and Mr. Haynes—gentlemen who owe their success largely to his example, and of the other members of the staff in the office I can only say, without giving names, that most of them will recognise my meaning when I speak of the friendly and personal spirit of their aid to the President as well as to the Institute in general.

Before sitting down, let me utter one thought more. It is impossible that in the use of words—those inefficient instruments of speech—I should never have given offence: words are difficult things to fit to every need. If there is anyone to whom words of mine, however harmless in intention, have been wounding, I hope he will remember first that blows of this kind are sometimes appropriated by recipients for whom they were never intended, and, beyond this, that, being two-edged, the unkind word may easily have hurt the speaker as much as the hearers. A man of words is a man of many repentant afterthoughts.

And so, my friends, I say "Good-bye," meaning by the word no more of separation than is necessarily implied by the good wishes which are the prayer of that word's extended form, or of its equivalents—"adieu" and "farewell."

Dinner to Professor Beresford Pite [F.]

HON. M.A., CANTAB.

A dinner was given in honour of Professor Beresford Pite at Pagani's Restaurant on 20 July on his retirement after twenty-three years as Professor of Architecture at the Royal College, South Kensington. Mr. W. R. Davies, of the Board of Education, was in the chair, and among those present were Mr. Paul Waterhouse, Sir Reginald Blomfield, R.A., Professor Rothenstein, Professor Adshead, Professor Anning Bell, Professor Derwent Wood, Professor W. R. Lethaby, Mr. W. A. Pite, Mr. Hubert Worthington (Professor Pite's successor at South Kensington), Mr. E. R. D. MacLagan, C.B.E., Mr. Theodore Fyfe, Mr. W. G. Newton, Mr. Topham Forrest, and Mr. Ian MacAlister. Between 60 and 70 were present.

Mr. Paul Waterhouse proposed "The Profession and Professor Pite," Sir Reginald Blomfield proposed "Architecture," and Professor Rothenstein, the Principal of the Royal College of Art, proposed "Professor Pite and the Royal College of Art."

Professor Pite, in his reply, said that among his earliest recollections were the smell of tracing paper and playing with T-squares after office hours. In the very early days his father sent his brother [William A. Pite] and himself to the then School of Art at South Kensington. Soon after that, on entering his father's office and beginning to feel the meaning of things, the happy discovery was made that there existed an unwooded pleasure in the exercise of architecture—something in the nature of

Since the presentation, the following letter has been sent by Mr. Waterhouse to Mr. Arthur Keen :—

MY DEAR KEEN,—It was impossible on Monday last to say even half the things that ought to have been said by a man in the position in which I found myself. I had no idea, when I accepted your invitation to be present with my wife at Conduit Street, what the acceptance was to imply. Of a meeting with a few friends I was assured, but that the gathering would be so large, so representative and so distinguished, was quite beyond my thoughts. Your own delicate speech and the graceful words of the President touched me very deeply, so did the cheery address in which Mr. Milburn gave expression to what he assumed to be the voice of the "Greater Institute." Even now in writing this I am embarrassed by realising that the mere enumeration of these unexpected and undeserved honours emphasises the disproportion between your praises and my performance. The suggestion of a duplicate of the portrait, overwhelming in its generosity, means a great deal more than even the kindest of the givers can well imagine, because it, and the parchment with its warmly fraternal greeting, will form a very enduring memorial of the handgrip between our family and the Institute.

At moments when I can set aside the thought of the undue value put upon my doings I see with increasing clearness the amazing kindness of my friends.

Mrs. Waterhouse and I were made very happy and quite unreasonably proud.—Yours very sincerely,

Athenæum, 26 July 1923.

PAUL WATERHOUSE.

Beresford Pite [F.]

CANTAB.

a gift which does not fade away but is part of one's inheritance in life, something which enabled one to look on architecture as belonging to the essence not only of time but of our ideals of the world to come. This gift—one spoke frankly of it as a gift which implies no merit—was the one which bound them together that night. It was stronger than any bond of professional sympathy such as binds many groups of men, and was part of the mysterious gift of inward pleasure imparted by the art of architecture. There were many fellowships in connection with architecture, and one of them was a mysterious something which allows one to feel a closer comprehension of such masters as Wren, and even of some phases of Michael Angelo, as the wonderful gift which made those men great was in some measure imparted to oneself. It was an occasion like the present, when one expressed the secret consciousness of a burning flame within, which gave it importance, sweetness and value. The opportunity and privilege of being associated with the Royal College of Art so long was one which he valued. The College and Schools of Art connected with it were the expression of the interest that the Government and State took in the vital necessity of art to the intellectual life of the nation. How deplorable it would be if the Government did not recognise art! How urgent would be the demand for a Ministry of Art, and how soon the discovery that it would be dictatorial! It was difficult to estimate aright the value of the co-operation of the Government in so abstruse a

DINNER TO PROFESSOR BERESFORD PITE

matter. Some resented that organisation which the Government had to impose on so delicate a flower as art. The Royal College of Art was the head of the whole system of Schools of Art in the country. The Prince Consort must be recognised as its originator. Were not London, England and the Empire richer by the possession of South Kensington Museum? Could they conceive what the life of London would be without that remarkable collection? The Frankfurt Fair was productive of the Great Exhibition of 1851. That was an age of giants: to-day they were only grown-up boys. He wished to emphasise the vast importance of the art schools of the country to industry. Everything that possessed form had in that form the means of refinement and knowledge. It was quite impossible to omit the art of building (the third largest industry) from any such art education; and fine building culminated in architecture. Architecture was the one thread which held together the exhibition at South Kensington; it was not religion or anything but the fundamental truths which characterise architectural styles. Architecture made all that collection synthetic and comprehensible. He had felt it an honour to be connected with the College and the Museum.

Where, asked Professor Pite, did architecture stand to-day? Once it stood for pure Greek. Athenaeums sprang up invaded by Corinthians. Presently it took its colour from the romantic Gothic and the Oxford Movement, which still found use and value for Mediæval forms and art. Now we have had an era of Free Renaissance—dare one call it licentious when it was guarded by the names of Elizabeth and Anne? That mixed period of architectural morality was passing away. But whither were present-day ideals tending? Was the Classicism of the eighteenth century all that was needed? Are we to drop out of our vision of progress all the wonderful nineteenth century and start where Chambers left off and take a view from the parapet of Somerset House which excluded the Houses of Parliament? He doubted if such a view was tenable. "When architecture ceases to reflect its age and current thought it ceases to be a living art and will become a mere museum. It must be active and progressive. Architecture continually owes its progress to those who are active thinkers and courageous designers. Unless we have men who will not be afraid of quick criticism it is bound to become stagnant. Where are we to find it? For our new ideals are we to await a new Sir Walter Scott or a cult of Jane Austen to throw us again into the tender feebleness of the eighteenth century? We have got evolving modes of construction, developed ideas of planning which are continuously changing, and a live movement connected with the replanning of towns. These large subjects are open to the architect of to-day. Is there anything exciting enough to create an ideal, can enthusiasm be kindled, what fuel have we to cast upon this flame?" Our architectural schools were founding themselves on French ideals of draughtsmanship without teaching French thoroughness. But would that express our needs? He personally had his doubts. He would urge those in charge of the architectural schools and with hopes for the future of architecture to recognise that, whether architects took themselves seriously or not, their works were going to last and the world would want to know

what was informing them, what was the motive in their art. He could only say: "Stir up that gift which is in you. Quicken the flame. Become a student afresh. Never leave off the pursuit of that provocation in work." He had the conviction that any work well and honestly done at the sacrifice of self, without thought of reward, must eventually acquire aesthetic value. How difficult, though, to visualise the result! But the conviction, he was certain, would root itself the more they attempted to find out the why and wherefore of the beauty of things like birds, ships and locomotives. With those hopes and those ideals he would take farewell. He was thankful at leaving with the warmest recollections of many happy years of delightful comradeship at the Royal College of Art and happy to think that they were years of successful work.

The speeches of Mr. Paul Waterhouse, Sir Reginald Blomfield and Professor Rothenstein all testified to the invaluable and inspiring work which Professor Pite has accomplished at South Kensington. The first Professor of Architecture at the Royal College will certainly always stand out as being one of the most distinguished who is ever likely to occupy the chair. The speakers dwelt on the fact that Professor Pite's retirement will, in another direction, be an advantage to architecture as it will leave him at greater liberty for the work of his private practice. On the other hand he will still continue to give his lectures at the School of Architecture at Cambridge and to act as Director of the London County School of Building.

Professor Pite is the second son of an architect, the late Mr. Alfred R. Pite. After being at King's College School, hc, with his elder brother Mr. William A. Pite, was articled in 1876 to his father's partners, W. G. Habershon and Fawckner. His early experiences in architecture were gained in the offices of this firm at Newport, Mon., which gave him a provincial grounding in architectural practice, as quantities were taken out in the office, and as town planning, though not in its modern sense, was being carried on at Cardiff. The young pupil was able to contemplate Burges' Watch Tower, shining and new, which had then been recently erected at Cardiff Castle. In those days the juniors rubbed sticks of Indian ink for the staff and tracings were multiplied by hand, as printing had not yet come in.

Mr. Pite joined the Architectural Association in 1879 (to become its President in 1896), and his membership has since remained unbroken. At this time he also attended the lectures of Mr. Roger Smith, who was then acting as deputy for Professor Hayter Lewis, at University College. On the completion of his articles the young Pite sought in vain for a position in the offices of Pearson, Waterhouse, Nesfield, Ewan Christian and Sir A. Blomfield (who received his knighthood later); but was finally successful on applying to Mr. John Belcher, and he started with him an association which lasted, with one break, until 1897. He gained the Donaldson Medal for architecture in 1879, and, what is of greater interest, the Soane Medallion in 1882, by that remarkable drawing for a West End Club House which, both for its qualities of drawing and imaginative power, placed him immediately in the front rank of students.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

This drawing, in which he was influenced by Dürer's prints and also by contemporary masters of Gothic, caused a great stir at the time ; its reputation became traditional, and its influence still remains. Mediævalism was then in the air ; a group of A.A. students had even petitioned the Committee for a special class for the study of mediæval art.

As a result of winning the Soane Travelling Studentship, Mr. Pite visited Germany, Austria and France. In 1884 we find him acting as draughtsman to Mr. H. H. Statham, then recently appointed to the editorship of *The Builder*. In 1885 he is again working for Mr. Belcher as chief draughtsman, and later he became his partner. The notable Institute of Chartered Accountants was secured in competition during this era and was followed by other buildings scarcely less remarkable, culminating in the design for the new Victoria and Albert Museum. Mr. Pite found in his partner a congenial friend : they travelled abroad together, and during one of these expeditions they met that remarkable water-colourist Bingham McGuinness, whom they employed to tint competition perspectives.

In 1883 Mr. Pite was admitted to the R.A. Schools, where he formed many of his life-long friendships. With Professor Lethaby and Atwood Slater, he, in 1884, competed for the Decoration Prize, but the young competitors were disqualified as being students of architecture. Sir Reginald Blomfield, Mr. Guy Dawber, Mr. Gerald Horsley and Mr. T. Maclarens were also among his fellow-students at the Royal Academy.

In 1897, Professor Pite's own practice having developed in London, his partnership with Mr. Belcher came to an end. He had been to the East on two occasions to erect the hospital at Jerusalem ; and in 1900 he accepted, with liberty to carry on his private practice, the newly founded Professorship of the Royal College of Art, the appointment which has just terminated after twenty-three years of architectural propaganda. A central event during this period was the International Congress, in 1908, on the teaching of Drawing, to which three years' organisation had been devoted. The wide effect of this gathering is not yet spent.

Professor Pite has felt that the width and importance of the influence of architecture upon all the arts is in the atmosphere at South Kensington. If this influence were more generally realised, he considers that it would have a broadening effect on the professional limitations of education and examination. He acknowledges the advantage he himself derived from the daily intercourse with Professors Lethaby, Lantéri and Moira, as professors of Design, Sculpture and Painting ; advantages which must have been shared equally.

In 1905, on accepting the position of Director of the London County Council School of Building, Professor Pite found an altogether different atmosphere. The classes are held in the evening for building craft students of all types, with a sprinkling of senior men. In this work he was assisted by J. B. Fulton, whose premature death soon after his appointment as Professor of Architecture at Glasgow has left a great gap.

The establishment of a School of Architecture at Cambridge University ensued upon the appointment of Mr. E. S. Prior as Slade Professor in 1911, and Professor Pite became associated with the organisation of the School

and as lecturer. He looks forward, with the appointment of Mr. Theodore Fyfe to the mastership of the School, to a further hopeful development in architectural education. Professor Pite is an Hon. M.A. of the University.

He is also a member of the R.I.B.A. Board of Architectural Education, where he feels that every needed limitation of outlook has been provided for one who is at heart still a rebel against the examination nostrum for artists.

* * * An interesting article by Mr. Theodore Fyfe on Professor Pite's architectural works, with illustrations, is given in *The Architects' Journal* of 25 July.

SUGGESTIONS GOVERNING THE PROFESSIONAL CONDUCT AND PRACTICE OF ARCHITECTS.

An architect in practice if a Member or Licentiate of the R.I.B.A. is governed by established customs accepted and observed by the architectural profession, and more particularly by the Charter and By-laws of the Royal Institute, which render him liable in the case of unprofessional conduct to reprimand, suspension or expulsion at the discretion of the Council.

The following may be considered to record in a general way the practice of architects, and also to indicate a standard of conduct in any special cases not specifically referred to therein :—

1. An Architect is remunerated solely by his professional fees and is debarred from any other source of remuneration in connection with the works and duties entrusted to him. It is the duty of an Architect to uphold in every way possible the Scale of Professional Charges adopted by the Royal Institute. An Architect must not accept any work which involves the giving or receiving of discounts or commissions, nor must he accept any discount, gift or commission from contractors or tradesmen, whether employed upon his works or not.

2. If an Architect owns, or have a commercial interest in, any material, device, or invention used in building he must inform his client thereof, and must obtain his sanction before permitting it to be used in works executed under his direction.

3. An Architect must not publicly advertise nor offer his services by means of circulars. He may, however, publish illustrations or descriptions of his work, and exhibit his name on buildings in course of execution (providing it is done in an unostentatious manner) and may sign them when completed.

4. An Architect must not attempt to supplant another Architect nor must he compete with another Architect by means of a reduction of fees or by other inducement.

5. In all cases of dispute between employer and contractor the Architect must act in an impartial manner. He must interpret the conditions of a contract with entire fairness as between the employer and the contractor.

6. An Architect must not permit the insertion of any clause in tenders, bills of quantities, or other contract documents which provides for payment to be made to him by the contractor (except for duplicate copies of drawings or documents) whatever may be the consideration, unless with the full knowledge and approval of his client.

DURABILITY OF BUILDING STONES

7. An Architect should not take any part in a competition as to which the preliminary warning of the Royal Institute has been issued, and must not take any part in a competition as to which the Council of the Royal Institute shall have declared by a Resolution published in the JOURNAL of the Royal Institute that members or Licentiates must not take part because the Conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

8. An Architect must not act as Architect or joint Architect for a work which is or has been the subject of a competition in which he is or has been engaged as Assessor.

9. It is desirable that in cases where the Architect takes out the Quantities for his buildings he should be paid directly by the client and not through the Contractor, except with the previous consent of the client.

10. The businesses of Auctioneering and House Agency are inconsistent with the profession of an Architect.

11. An Architect must not accept an appointment in any commercial firm in which the extent of his remuneration is affected by the profits of the firm.

DURABILITY OF BUILDING STONES.

The following letter from Mr. Alan E. Munby [F.] was published in *The Times* on the 27 July :—

Some time ago in connection with the public interest aroused on the subject of the decay of stones in our national buildings, you were good enough to allow me to draw attention to certain tests in progress at the Geological Survey and Museum with the co-operation of the Royal Institute of British Architects, and I then intimated that I should venture to send you some further particulars when a report on those tests was available.

Carefully prepared specimens of six common building stones were experimented upon, two samples of each, one facing north and the other south, being exposed under similar conditions on the roof of the museum in Piccadilly for ten years. Full-size photographs of the faces of the blocks (otherwise protected by frames) were taken, and a magnified specific area of each block was also photographed at the beginning and end of the period, and during the interval chemical analyses, microscopic, freezing, absorption, and staining tests were carried out upon other pieces of the stones saved in the preparation of the samples. I must not occupy your space with technical details, which can be perused and the excellent series of photographs seen by those interested in the report itself either at the Survey Museum in Jermyn Street, or at the Royal Institute of British Architects, 9 Conduit Street.

It will, of course, be realised that any generalisations from so small a number of samples tested for what is, comparatively, a short period must be very carefully guarded, but, with this reservation, it may be said that the sandstone (from Dumfriesshire) tested showed the least decay, that Portland stone of the best quality showed its superiority over other limestones, while Bath stone of fine grain showed higher resistance than the coarser and more shelly varieties of this stone, and also probably than a typical oolitic stone from the Midlands. An interesting side issue to the tests indicated that the formation of copper salts from the gun-metal supports of the stones had an appreciably deleterious effect on the limestones.

On behalf of the Science Committee of the Royal Institute of British Architects I am to ask if you will allow me to take this opportunity of publicly acknowledging the indebtedness of the institute and those interested to the Geological Survey, which, under Mr. J. Allen Howe's initiative, has undertaken the whole of the actual tests and expenses in connection with this valuable research, which it is proposed to continue for a further period.

THE R.I.B.A. AND THE ALLIED SOCIETIES OVERSEAS.

On 14 May 1923 Mr. Paul Waterhouse sent a letter of greeting to the Presidents of the Allied Societies overseas in Canada, Australia, and New Zealand, as follows :—

"In the course of a few weeks my Presidency of the R.I.B.A. will end, and I do not feel that I can lay down my office with satisfaction to myself without sending a word of greeting, thanks and good wishes to those who occupy the leading position in the Allied Societies overseas.

"One of the greatest pleasures of my two years of presidential work has been the ever-increasing sense of the strong bond of union which Societies such as yours foster and maintain. This union is more than a mere figure of speech. The actual touch which prevails between Mother England and the farthest parts of the British Empire through the medium of our architectural organisation is almost incredibly real and alive. I daresay it is stronger now than ever it was ; it may be that I have been granted a clearer sight of it and a nearer sense of it than has been granted to my predecessors. But in any case it is one of Architecture's best possessions and one of Britain's elements of strength. May I thank you for your personal share in this intercourse, may I assure your Society of the keen appreciation which we in London have of this brotherhood, and may I also wish you and your colleagues and the general world of architecture in the Commonwealth the best of success in the continuance of these happy conditions.

"Hoping that you will convey this message, though personal to yourself, to those who share office with you and indeed to the members of your Society."

Cordial replies in reciprocative terms have been received from the following Presidents of Allied Societies :—

Mr. Cecil S. Burgess, President of the Alberta Association of Architects, Edmonton, Alberta.

Mr. Lewis H. Jordan, President of the Royal Architectural Institute of Canada, Winnipeg.

Mr. W. A. Ritchie-Fallon, President of the Cape Institute of Architects, Cape Town.

Mr. J. B. Fynes, President of the Ontario Association of Architects, Toronto ; and

Mr. K. A. Henderson, President of the Royal Victorian Institute of Architects, Melbourne.

EDINBURGH COLLEGE OF ART.

The following awards have been made to students of the Architecture Section, July 1923 :—

Travelling Scholarship of £40—Archibald Craig.

The R.I.B.A. "Henry Jarvis" Travelling Studentship of £50 for Ex-Service Men—John A. Arthur.

Correspondence

ARCHITECTS AND ADVERTISING.

To the Editor, JOURNAL R.I.B.A.,—

7 Gray's Inn Place, Gray's Inn, London, W.C.1.

SIR,—Notice boards, indicating that architects (apparently) act as agents in the letting of buildings erected by them, are becoming increasingly common, and in some cases the advertisers are members of the Institute. I have always understood that this practice was contrary to the intention, if not to the letter, of the code of professional conduct and this, possibly erroneous, view is held by others. A pronouncement on this question would therefore be opportune, nor would it be amiss if the Council examined the whole of the ground covered by the code.

If registration is still the ultimate aim, and if opposition to it is to be minimised, it can be only by restricting the architect to his own job or else by including all who practise any of the arts connected with buildings—even those whose art is principally that of letting them.

—Yours faithfully,

J. MURRAY EASTON [A.]

EXHIBITION OF ARCHITECTURE AT NORWICH.

Following the example of the Institute in holding an Exhibition of contemporary British Architecture in London, the Norwich and Norfolk Association of Architects have recently successfully held an Exhibition of local work done by their members, to which the public were admitted without charge. The Exhibition consisted chiefly of some 250 photographs and a few drawings, comprising domestic work, illustrating both the exteriors and interiors of houses, business premises, and church restoration work, rood screens and war memorials. Examples were also given of urban and rural dwellings, including those built for the District Council at Holt. The successful arranging of the Exhibition was largely due to Mr. Eric W. B. Scott, the hon. secretary.

The Exhibition, which has now come to an end, was opened by the Sheriff of Norwich, Mr. Hubbard, and Mr. G. J. Skipper occupied the chair at the opening ceremony in the absence of Mr. E. T. Boardman (President of the Association), who was unable to be present.

TOWN PLANNING CONFERENCE : GOTHENBURG.

Mr. Raymond Unwin, F.R.I.B.A., was appointed to represent the Royal Institute of British Architects at the Town Planning Conference held at Gothenburg from 3 to 10 August, 1923.

Major Hubert C. Corlett [F.] has been awarded a bronze medal by the jury for his designs and drawings, which were exhibited at the Paris Salon.

PROFESSOR HUBERT WORTHINGTON.

Mr. John Hubert Worthington, M.A. [A.], has been appointed in succession to Professor Beresford Pite as Professor of Architecture at the Royal College of Art, South Kensington. Mr. Worthington was elected an Associate in 1912, and is a member of the Institute Council. On several occasions Mr. Worthington has been a member of the Literature Committee, and his papers on Italian architects, which have been published in the Institute Journal, are examples of scholarly research and criticism. Mr. Worthington did valiant service during the war. His enthusiasm in the cause of architecture and his scholarship assure his success at South Kensington.

Obituary

J. H. MORTON [F.].

The death occurred on June 28 of Mr. Joseph Hall Morton [F.], of Dinsdale House, Westoe, South Shields, at the age of seventy-three. He had offices in South Shields and Newcastle-upon-Tyne and since 1900 his son, Mr. R. H. Morton [A.], had been in partnership with him. He obtained his earlier training with the late Mr. Matthew Thompson [F.]. Mr. Morton occupied the Presidential Chair of the Northern Architectural Association in 1892-93 and in the course of his career designed many poor law institutions and infirmaries in various parts of the country, including South Shields, Gateshead, Leeds, Bradford, York, Doncaster, Hartlepool, Hexham, Burton-upon-Trent and Stamford. In addition he planned a colony for feeble-minded at Prudhoe to house about 2,000 patients, of which the greater part is being carried out.

The beautiful outline of many local parish churches is also due to his skill, particularly those of St. Aidan's, South Shields, St. Jude's, South Shields, St. Aidan's, West Hartlepool, St. Aidan's, Herrington, Sunderland, and also many restoration works, including St. Stephen's, South Shields, St. Hilda's, South Shields, and All Saints, Stranton.

In various parts of the country, hotels, theatres, public offices, scholastic establishments, banks, infectious hospitals, baths and washhouses bear the mark of his craftsmanship, and throughout Northumberland and Durham he took quite a prominent part in the preparation of housing schemes for the various councils.

He also designed and erected several war memorials, amongst others being one for the church of St. Hilda, South Shields, which took the form of an old Anglian Cross. Mr. Morton was a Freemason and was the designer of many notable buildings of the craft. He was a member of the St. Hilda Lodge, South Shields, and was a past Provincial Grand Superintendent of Works (Durham).

ALFRED BOSSOM TRAVELLING STUDENTSHIP

Mr. Morton had the honour of sending designs for workhouses and infirmaries to the Russian Government in the time of the late Czarina, who was interested in this class of building. He was also asked by the Government to send similar designs to the Government of Venezuela. His design for the Stamford Infirmary formed part of the exhibit of the Local Government Board at the last Paris Exhibition and was awarded "Hors concours."

W. DIXON (*Licentiate*).

Mr. W. Dixon, of the firm of R. and W. Dixon, architects and surveyors, Barnsley, passed away after a short illness on 21 July, on his 62nd birthday. He was articled to the late Mr. James Lumley, C.E., Bradford, and afterwards entered the office of his brother, ultimately becoming a partner, and was engaged mainly in the surveying part of the practice. He had been a Guardian of the Penistone Union for 20 years, and Vicar's Warden at Darton Parish Church for a similar period, also hon. corresponding manager to the Kexbro' Non-Provided Schools for a longer period, and a Governor of Geo. Beaumont's Foundation. He leaves a widow and one daughter. His only son, Captain C. B. Dixon, M.C., died from wounds received in action in 1918.

THE R.I.B.A. ALFRED BOSSOM TRAVELLING STUDENTSHIP.

FOR THE ENCOURAGEMENT OF THE STUDY OF COMMERCIAL ARCHITECTURE.

The following is the draft scheme for the R.I.B.A. Alfred Bossom Travelling Studentship for the Encouragement of the Study of Commercial Architecture. This scheme has been approved by the Board of Architectural Education, who have expressed their grateful thanks to Mr. Bossom, of New York, who has so generously endowed this studentship, which should prove a stimulus to the study of commercial building by our younger architects.

1. The Board of Architectural Education will appoint a special Jury consisting of three Architects (including, if possible, the President of the Royal Institute of British Architects), a builder, and a property owner, to control and conduct the competitions for the award of the Silver Medals, the Gold Medal, and the Studentship. The builder serving on the Jury will guide his colleagues in the estimates of cost, and the property owner on the estimates of revenue.

2. The competitions will be confined to those Students of the "Recognised" Schools of Architecture which enjoy exemption from the R.I.B.A. Final Examination, who, after passing through the School Courses, have attained the Associateship of the R.I.B.A.

3. On the recommendation of the Board of Architectural Education other Schools of Architecture at present not "Recognised" for Final Exemption may be admitted to the competition so that those of their Students who have passed the R.I.B.A. qualifying Examinations and have attained the Associateship of the R.I.B.A. may take part in the competition.

4. An additional competition will be arranged by the Jury which will be open to Associates of the Royal Insti-

tute who have not passed through one of the "Recognised" Schools or one of the Schools mentioned in paragraph 3. A Silver Medal will be awarded to the winner.

5. The Jury will set a subject each year and send it to the Schools. Each of the Schools will appoint a local Jury of similar composition to the Jury mentioned above, to conduct the competition and award the Silver Medal for the best design submitted by a graduate of the School. Each design will be accompanied by an approximate estimate of the cost of the building and the financial return from it. The Silver Medals awarded at the Schools will be known as the "Alfred Bossom Silver Medals for Commercial Architecture." The Silver Medals will be handed to the successful competitors at the Annual Distribution of R.I.B.A. Prizes and Studentships.

6. The designs of each of the winners of the Silver Medals will be forwarded to London, where they will be judged by the Jury.

7. The Jury will award the "Alfred Bossom Gold Medal" and the "Alfred Bossom Travelling Studentship" to the author of the best design submitted to them. The Gold Medal will be handed to the successful competitor at the Annual Distribution of the R.I.B.A. Prizes and Studentships.

8. The holder of the Studentship will be required within a period of not more than 6 months from the date of the award to journey to the United States of America and spend not less than six months there in the study of commercial architecture.

9. On arrival in the United States the Student will report himself to the Architectural League of New York, which will, by means of a special Committee appointed for the purpose, give him advice and guidance on the subject of his studies.

10. At the conclusion of his stay in the United States the holder of the Studentship will be required to submit a detailed and illustrated report on a particular branch of the subject laid down by the Jury. This report, when approved by the Jury, will be printed and copies will be sent to each of the competing Schools of Architecture and to each student who has taken part on the competition of the year.

11. The Travelling Student will be paid the sum of £250 to meet the cost of his journey to and from the United States and his stay of not less than six months in that country.

12. The complete Roll of Silver Medallists and Gold Medallists will be kept at the Royal Institute of British Architects, and copies of the Reports will be preserved in the R.I.B.A. Library.

13. Mr. Alfred Bossom has generously undertaken to provide funds to meet the cost of the scheme, including the provision of the Medals and the payment of the Travelling Students, for a period of five years.

14. At the end of five years the Board of Architectural Education will submit a report to Mr. Bossom on the working of the scheme and will discuss with him any modifications which may be found to be desirable with a view to placing it on a permanent basis.

15. Mr. Bossom will arrange for the design, casting and supply of Gold and Silver Medals.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

IMPERIAL WAR GRAVES COMMISSION. MEMORIALS TO THE MISSING IN FRANCE. PRELIMINARY NOTICE.

The Imperial War Graves Commission invite Architects who served during the war as members of the Military, Naval, or Air Forces raised in any part of the British Empire to send in their names for admission to a competition for the designing of the undermentioned of the memorials to the missing to be erected in France by the Imperial War Graves Commission.

The memorials to the missing proposed are to commemorate those who fell in the war in France and Belgium but have no known grave and will be in the neighbourhood of the following places, and will have inscribed on them the following number of names :—

At Béthune, 20,000 names ; at Armentières, 15,000 names ; at Cambrai, 6,000 names ; at Soissons, 5,000 names.

Applications for particulars of premiums and other regulations from those desiring to compete are to be addressed to the Secretary (Works Branch), Imperial War Graves Commission, 82 Baker Street, London, W.1, and must be received there not later than 1 January 1924, and must be accompanied by a statement giving particulars of the war service and professional career of the applicant, and clearly stating which of the memorials it is desired to compete for.

A deposit of two guineas for each set of plans, regulations and other particulars applied for must accompany the application, and such deposit will be returned either on receipt of a *bona fide* design or on the return of the plans, regulations and particulars in good condition.

The Assessor appointed by the Imperial War Graves Commission to examine and report on the designs submitted is Sir Aston Webb, K.C.V.O., P.R.A.

THE SITE OF THE DURHAM WAR MEMORIAL.

The following letter of protest with regard to the site of the proposed Durham County War Memorial was published in *The Times* on 30 July :—

Sir,—The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings ask you to allow them space to voice the opinion of these two bodies with regard to the proposal to place in the middle of the Palace Green at Durham the County War Memorial.

These societies feel that if this is done the fine open space before the Cathedral will lose very much of its beauty and interest. Just as plain wall surface is of immense value in architectural composition, so is a wide open space, which has been allowed to remain unbroken by architectural incident. The beauty of many a market-square has already been marred by the various kinds of street furniture—electric light and tram standards, drinking-troughs, shelters, and memorials.

There is no reason why the Palace Green at Durham should be spoilt by incidents consequent upon modern progress ; further, there is no need for it to be broken by the building of this memorial. The site may very well be one which would show off the memorial at its best, but it will involve the sacrifice of surrounding

beauty, for the Cathedral itself will suffer as well as the Green.—We are, Sir, your obedient servants,

ARTHUR KEEN,
Hon. Secretary, Royal Institute of British Architects.

THACKERAY TURNER,
Chairman of Committee, Society for the Protection of Ancient Buildings.

9, Conduit Street, Regent Street, W.1.
27 July.

* * * Mr. Arthur Keen in a subsequent letter to *The Times* states that when in 1922 the present position was decided upon the Council of the R.I.B.A., in conjunction with the Council of the Northern Architectural Association, sent a protest to the authorities concerned.

Competitions

ELLESMORE STREET WESLEYAN NEW CHURCH AND SUNDAY SCHOOL, WARRINGTON.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for architectural competitions.

IAN MACALISTER,
Secretary.

WIRRAL UNION : CLATTERBRIDGE INFIRMARY COMPETITION. HALIFAX : BULL GREEN LAY-OUT COMPETITION.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competitions because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

H. GODFREY EVANS,
Assistant Secretary.

REFORM OF THE LONDON BUILDING ACTS.

The Committee appointed by the Council in July, 1922, for the purpose of considering and reporting on the reform of the London Building Acts have submitted to the Council an interim report covering the work done by the Committee up to the end of the session.

This report, which deals with a great variety of points of the utmost importance to architects and building owners in London, is now before the Council of the Institute.

SKETCHING TOUR IN NORMANDY.

A Sketching Tour to Normandy (Caen, Bayeux, Lisieux, Evreux and Rouen) is being organised, to start on Monday, 10 September, and returning 22 September. Particulars may be obtained from Mr. G. A. T. Middleton [A.], Hartley, Cranbrook, Kent. The cost will be 15 guineas each.

THE EXAMINATIONS

NOTES FROM THE MINUTES OF THE COUNCIL MEETING, 9 JULY 1923.

ARCHITECTURAL SCHOLARSHIP.

A vote of thanks to Mr. John Keppie [F.], of Glasgow, for his gift of a Scholarship to be held in alternate years by the most distinguished Student of the Glasgow School of Art and the Glasgow School of Architecture, has been passed by the Council of the Institute.

BRITISH WATERWORKS ASSOCIATION.

Mr. H. D. Searles-Wood and Mr. Percival M. Fraser have been appointed to represent the R.I.B.A. upon the Standing Committee on Water Regulations of the British Waterworks Association.

RETIRED FELLOWSHIP.

Mr. I. R. E. Birkett, elected Associate in 1886 and Fellow in 1923, was transferred to the list of Retired Fellows.

NOTES FROM THE MINUTES OF THE COUNCIL MEETING, 23 JULY 1923.

THE FUTURE POLICY OF THE R.I.B.A.

The Council have instructed the Charter and By-Laws Committee to meet forthwith for the purpose of considering the general question of the policy to be pursued during the coming Session and to report upon it at the first meeting of the Council after the recess.

THE R.I.B.A. AND COUNTRY MEMBERS.

Upon the recommendation of the Allied Societies' Conference, it was decided to arrange in November next in London a three-day meeting, which will include some of the annual R.I.B.A. functions at present held on separate dates during the year. If the experiment proves successful it is hoped in future to arrange the annual "Architects' Week" in London, in which will be included the Annual Dinner, the presentation of the Royal Gold Medal, and the President's Inaugural Address, and perhaps other functions. In this way it is hoped that country members of the Institute will be given an opportunity of attending the most important annual functions of the Institute by making a single visit to London only.

NEW ALLIED SOCIETY.

The Burma Society of Architects have been admitted to alliance with the R.I.B.A. under the provisions of By-Laws 77 and 78.

R.I.B.A. KALENDAR, 1923-24.

The Kalendar for the coming Session is now in course of preparation, and changes of address, telephone numbers, etc., should be notified to the Secretary, R.I.B.A., 9, Conduit Street, London, W.1., as soon as possible.

R.I.B.A. EXAMINATIONS

The questions set at the Intermediate and Final (or Special) Examinations held in June, 1923, have been published, and are on sale at the Royal Institute, price 1s. 6d. (exclusive of postage).

The Examinations

INTERMEDIATE.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London, Leeds and Birmingham from 1 to 7 June. Of the 94 candidates who presented themselves, 33 passed and 61 were relegated. The successful candidates were as follows, the names being given in order of merit as placed by the Examiners:—

GARDNER : Alfred Herbert [P. 1922], 5 Albany Road, Coventry.
MARTIN : George Legat [P. 1919], 31 Maureen Terrace, Seaham Harbour.

DANN : Clifford Horace [P. 1920], 66 Trinity Street, Norwich.
HARRIS : Kenneth William Furneaux [P. 1921], Laurel House, Linton, near Maidstone, Kent.

POWELL : Maynard Henry [P. 1921], 40 Woodstock Road, Moseley, Birmingham.

MASON : Hilda Frances [P. 1923], 34 Bedford Square, W.C.1.
DARSA : Henry [P. 1922], 19 Camden Gardens, Shepherd's Bush, W.12.

BARRETT : Wilfred Charles [P. 1920], Windmill Cottage Manor House, Northfield, Birmingham.

COOMBES : Robert Edwin Montagu [P. 1921], Cathedral School, Llandaff, South Wales.

CORNFORD : Roger Heney Cope [P. 1922], 16 Carlyle Mansions, Cheyne Walk, London, S.W.3.

ELLIS : William Cecil [P. 1921], 75 Layton Avenue, Mansfield, Notts.

EVANS : Evan Arthur Edward [P. 1920], 1 Court Ucha Terrace, Port Talbot, Glam.

GARWOOD : Alfred Charles [P. 1920], 69 Roupell Street, Lambeth, S.E.1.

*GEENS : Antoine Englebert, Leightonhurst, Waverley Road, Bournemouth.

GOODIN : Frederick Glanville [P. 1920], 36 Western Elms Avenue, Reading.

GRIFFITHS : Gordon Herbert [P. 1920], 58 Cornerswell Road, Penarth.

HARRIS : Walter Henry Biggs [P. 1920], 48 Taunton Road, Bridgwater, Som.

JONES : Leonard Stanley [P. 1919], 18 Blenheim Road, Reading.

KIMBER : Charles Frank [P. 1920], Avonview Chambers, Bridge Street, Evesham, Worcestershire.

LIVERSEEKE : Una [P. 1921], 161 Rotton Park Road, Edgbaston, Birmingham.

MORLEY : Chester Stanley [P. 1921], 20 Wemsley Grove Tonge Moor, Bolton.

OVERNELL : Harold [P. 1920], 106 Upper Grosvenor Road, Tunbridge Wells.

PARKIN : Horace Reginald [P. 1916], Chadhurst, Far Headingley, Leeds.

PETHERBRIDGE : Audrey Harriet [P. 1920], "Kenmore," Paignton, S. Devon.

PRICE : Wilfred John Brookhouse [P. 1921], 34 Kensington Gardens, Ilford, Essex.

ROGERS : Donald John [P. 1921], 96 Trinity Road, Handsworth, Birmingham.

SMITH : Bertram James Albert [P. 1920], "Rossmoyne," Southfield, Hessle.

STOKES : Horace William [P. 1921], 119 Wills Street, Lozells, Birmingham.

TYLER : Eric Brian [P. 1922], 10 Archer Road, Penarth, Glam.

WHITWELL : Edward John [P. 1920], 25 Lutterworth Road, Northampton.

WILD : Clifford [P. 1921], 535 Oldham Road, Failsworth, Manchester.

WILLIAMS : George [P. 1920], 59 Grafton Street, Hull.

YORATH : Frederick George [P. 1921], "Vader," Oakville Avenue, Burslem, Staffs.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE FINAL AND SPECIAL.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from 14 to 21 June. Of the 27 candidates admitted (two of whom took Part I. only, having elected, in accordance with the regulations, to take the Examination in two parts) 11 passed and the remaining 16 were relegated. The successful candidates are as follows :—

ALEXANDER : Thomas Mackelvie [Special], 6 Prince Alfred Road, Wavertree, Liverpool.

BUCHIA : Shapurji Nasarwanji [Special], 1 Keppel Street, W.C.1.

CLARK : Richard John Bond [S. 1917], 24 Lannoweth Road, Penzance.

DODDINGTON : William [Special], 70 Bousfield Road, New Cross, S.E.14.

*HAFEZ : Ali [Special], Royal College of Art, South Kensington, S.W.

*KASSEM : Hussein Zaki [S. 1913], State Buildings, Ministry of Public Works, Cairo, Egypt.

MAY : Arthur John [Special], 31 Allington Road, Southville, Bristol.

*MIKHAIL : Fouad [Special], Royal College of Art, South Kensington, S.W.

RIDING : Richard Arthur Fielding [Special], 57 Longside Road, Earl's Court, S.W.

ROSS : William [Special], 137 West Regent Street, Glasgow.

TOY : Sidney [Special], 29 Essex Street, Strand, W.C.

The candidates marked * are not British subjects, but have taken the Examinations for the purpose of obtaining certificates to that effect.

The following candidate passed the Special Examination held in Bombay from 23 to 28 April :—

PARHAM : Arthur Douglas, Public Works Dept., Colombo, Ceylon.

The following six candidates passed the Special War Examination held in Melbourne in December 1922 :—

BEECH : G. A. GALE : D. W.
BUTLER : A. R. HALL : A. S.
CUMMINGS : C. L. PARKES : S. T.

Members' Column

WANTED TO PURCHASE AN ARCHITECT'S PRACTICE.

FIRM of London Architects and Surveyors desire to Purchase Architect's Practice within radius of 60 miles of London, or would consider Partnership or mutual arrangement.—Box 706, c/o Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

CHANGES OF ADDRESS.

PROFESSOR BERESFORD PITE [F.] has taken offices at 101, Great Russell Street, W.C.1, and this will be his address from 1 September.

The address of Mr. Geoffrey Morland [A.] is now Castle Green Road, Kendal.

MR. W. SCOTTER OWEN, M.A. [A.], P.A.S.I., has moved to new offices, and his address is now 9, King's Bench Walk, Temple, E.C.4. Telephone No.: City 3434.

MR. MARTIN BRIGGS [F.] having been appointed one of His Majesty's Inspectors of Technical Schools under the Board of Education, has resigned his Lectureship at University College, London, and is retiring from private practice. From 20 July his address for all purposes will be 9 Winterstoke Gardens, Mill Hill, N.W.7.

PARTNERSHIPS.

GORDON JACKSON AND LAMBERT.

MR. F. H. LAMBERT [A.] has joined Mr. T. Gordon Jackson [F.] in partnership, and the practice will be conducted at 7, Great James Street, Bedford Row, London, W.C.1.

COLES AND BARTON.

MR. F. J. BARTON [A.] has joined in partnership Mr. A. Coles, A.M.I.M.C.E., and the firm will practice as Coles and Barton, Architects, Civil Engineers and Surveyors

TOWNSEND AND HUTTON.

MR. A. C. TOWNSEND, Dipl. Arch., A.R.I.B.A., and Mr. C. H. Hutton, B.Arch. (Hons.), have commenced practice as Townsend and Hutton, Architects and Surveyors, Radcliffe's Buildings, 37 Moorfields, Liverpool. Telephone: Cent. 4589.

PARTNERSHIPS WANTED.

ARCHITECT (A.R.I.B.A.), with country and sea-coast practice, desires to meet an Architect (Member of the Institute) having a London practice but preferring country life, with a view to partnership.—Box 702, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

F.R.I.B.A. (39), now retiring from carrying on a very successful domestic and general practice abroad, wishes to get in touch with an Architect, preferably in the Southern Counties, who is desirous of admitting a partner or disposing of his practice. The writer, now in England, will be in Italy during the coming winter, but available from next April.—Apply Box 741, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

LIVE ARCHITECT SURVEYOR (A.R.I.B.A., late General Staff Officer) seeks touch with senior leading member of the profession in London to practise more fully in partnership or collaboration; capable and energetic abilities now not sufficiently utilised. Identity, etc., will first be disclosed in confidence by the Secretary to any likely respondent.—Apply Box 2963, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

OFFICE TO LET.

ARCHITECT, Buckingham Palace Road, has two well-lighted rooms to let on second floor, with possible joint use of third room. Separate entrance.—Apply Box 703, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

OFFICE REQUIRED.

REQUIRED, a small West End office by an Associate of extensive experience practising in London, willing to serve as chief assistant and manager in return for a nominal salary.—Apply Box 2473, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ARCHITECT'S PRACTICE FOR SALE.

ARCHITECT (F.R.I.B.A.) wishes to dispose of a thoroughly "live" practice in Yorkshire with actual work in progress and good prospects. For full particulars apply Box 9823, c/o Secretary R.I.B.A., 9 Conduit Street, Regent Street, London, W.1.

APPOINTMENTS WANTED

ASSOCIATE, 28, married, ex-Service, would like to hear from Architect abroad requiring assistance with his practice. Energetic, sound general knowledge, and could take entire charge of works. Some Colonial experience.—Apply Box No. 2,873, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

COMMENCEMENT OF PRACTICE.

MR. E. H. GANDY, A.R.I.B.A., late of the Egyptian Government, has commenced practice at Cooden (temporary address, South Street, Cooden Drive, Bexhill). He will be glad to receive trade catalogues.

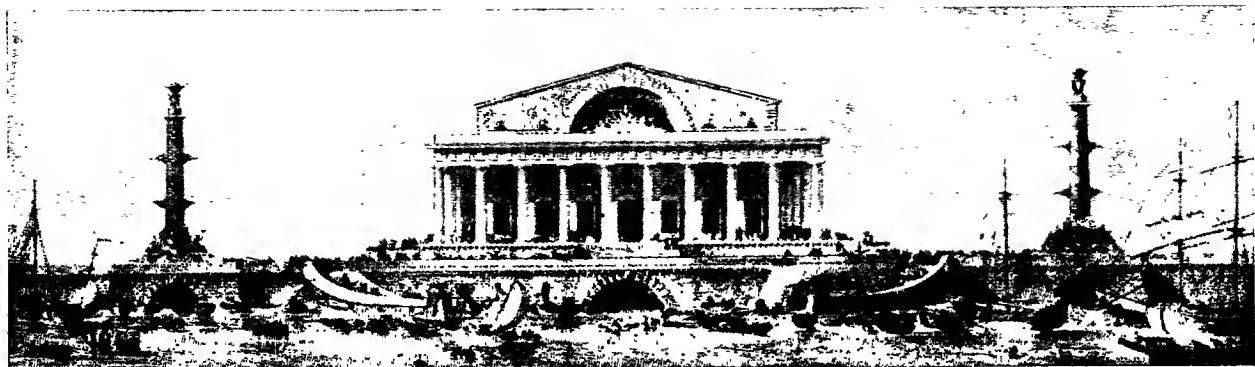
MR. FRANK W. EGERTON, A.R.I.B.A., has commenced practice at 4 NB, Victoria Chambers, Paignton, Devon, and would be glad to receive trade catalogues.

MR. JOHN S. BOYD [A.] has commenced practice at 65 Bath Street, Glasgow.

A LICENTIATE R.I.B.A. is going to the United States of America on 8 September 1923, and would be pleased to assist members who have business matters in hand there and find it inconvenient to go themselves.—Apply Box 701, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.



Executed Design (1803)

THE EXCHANGE, PETROGRAD

ARCHITECT : THOMAS DE THOMON

Russian Art of the Petersburg Period*

BY R. BOKER (HONORARY CORRESPONDING MEMBER)

IN March 1922 an article by Mr. W. Henry Ward, M.A., entitled "Russian Architecture," brought to the notice of the readers of the JOURNAL of the R.I.B.A. the first volume of *L'Art Russe*, by M. Louis Réau, which had just been published by Henri Laurens, Paris. This volume dealt with the history of Russian art from the earliest times to the accession of Peter the Great. It has now been supplemented by a second volume, which brings the account up to the present day. Together they form a very complete record of the subject.

Anyone in Western Europe who attempts to write about Russian art at the present time, when intellectual relations between Soviet Russia and the civilised world are practically non-existent, labours under considerable difficulties. There is no doubt that M. Réau's volumes would have been far better illustrated if he had been able to obtain from Russia photographs and drawings of the works of art he describes. As it is, he has had to be content with borrowing most of his illustrations from such Russian works as he could find in Paris. From an architect's point of view, the complete absence of plans is much to be regretted.

Nevertheless, M. Réau has produced a valuable work which affords very interesting reading. His first-hand knowledge of Russia and of the most recent Russian literature on national art and archaeology has enabled him to present Russian art in a far truer light than that in which it often appears in foreign (*i.e.*, non-Russian) works.

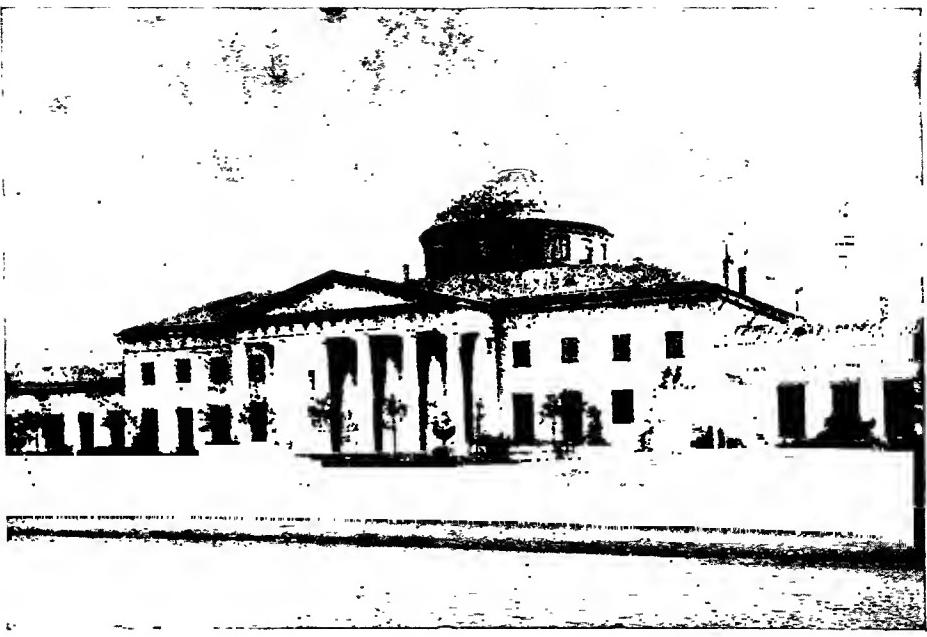
He treats its history in close connection with that of the *milieu* in which it developed. Thus he rightly emphasises the fact that the change wrought by Peter was

by no means so sudden and unexpected as is often supposed. Russia had never ceased to be in contact with the West, and the gradual conversion of the ruling class to western ideas is the salient characteristic of Russian history for half a century before the advent of the great reformer. The desperate efforts of the reactionary party, which clung tenaciously to Byzantine and national traditions, were powerless to stem the ever-rising tide of occidentalism. Leading Russians grew more and more conscious of their brotherhood with the western nations. The reign of the Tsar Alexis, the father of Peter the Great, was a period of transition. The policy of this prudent and gentle ruler to a certain extent prepared the ground for the drastic reforms afterwards carried out by his impetuous and despotic son.

The year 1703 witnessed the foundation of St. Petersburg, now called Petrograd, and thenceforth the history of Russian art is practically a history of art in that capital.

If Russian art in general is, so to speak, a comparatively recent discovery, more especially is this true with regard to the art of the "Petersburg period." An intelligent interest in it has only arisen in our own day. The men who, in the middle of the last century, placed the study of Russian archaeology and art-history on a scientific basis were deeply imbued with the Slavophil tendencies of their time, and consequently hostile to the western ideas of which Peter the Great's capital was the embodiment. The only epoch which they deemed worthy of consideration was the pre-Petrovian. With the advent of Peter, the history of Russian art, according to them, stopped, and all that subsequently took place was nothing but a regrettable error. The time when it was customary to talk like this is still remembered by Russians who have not yet reached old age. Despite the fact that the beauties of the "northern Palmyra" were

* *L'Art Russe de Pierre le Grand à nos jours.* By Louis Réau, formerly Director of the Institut Français at Petrograd. Paris, 1922. [H. Laurens].



TAURIDE PALACE, PETROGRAD (1783-1788) ARCHITECT: STAROV
(Presented by the Empress Catherine II to her favourite, Prince Potemkin "of the Tauride,"
on the conquest of the Crimea. From 1905 to 1917 the home of the Duma)



ARKHANGELSKOE, NEAR MOSCOW
Typical country residence of a Russian nobleman of the end of the eighteenth century

RUSSIAN ART OF THE PETERSBURG PERIOD

sung about a century ago by the poet Pushkin, in lines which every educated Russian knows by heart, the eyes of most Petersburgers were not opened to them till about 1900. On the eve of the bi-centenary of the foundation of the city, a newly created art journal, the *Mir Iskusstva*, devoted a special issue to St. Petersburg, which roused more than a passing interest, marking as it did the commencement of an important artistic movement. Three very successful retrospective art exhibitions helped to destroy the prejudices against St. Petersburg. The one devoted to architecture led to the inauguration of a "Museum of Old Petersburg," which, recently removed to a wing of one of the former imperial palaces, was originally housed in the private residence of Count Paul Suzor, Hon. Corr. Mem. R.I.B.A., now deceased, but doubtless still remembered by some of his foreign colleagues on account of the active part he used to play as Russian delegate at International Congresses.

The art of St. Petersburg was, of course, originally imported from the West. Excellent in their way as were the architects of Moscow, they were obviously incapable of carrying out Peter's designs. He therefore employed foreigners. During his journeys abroad, and at other times through his agents in foreign countries, he spared no exertions to induce artists and skilled artisans of all nationalities to come to St. Petersburg. The main advantage of the situation of the new capital, outweighing in his opinion all other considerations, was that it facilitated intercourse with the West. The first to arrive were the Dutch, for it was to Holland, the foreign country which he knew best, that Peter naturally first turned for assistance. Traces of Dutch influence can still be detected in the oldest buildings of St. Petersburg and of the Emperor's favourite summer residence—Peterhof. The Dutch were soon superseded, however, by Italians, Germans, and Frenchmen. Peter himself invited to Russia the distinguished French architect Leblond, and the latter brought in his train a large number of artists and craftsmen. From that moment it is, on the whole, French influence which predominates. M. Réau even declares that Paris played as important a part in the formation of modern Russian art as Byzantium did in shaping the art of mediæval Russia. Possibly his patriotism prompts him to exaggerate a little. At all events, the importance of the work done by architects of Italian origin must not be under-estimated. The influence of Germany is less apparent. It is true that Andreas Schlüter, the celebrated Berlin architect and sculptor, spent the end of his life in Petersburg, but the authenticity of the works attributed to him there is doubtful. Moreover, as Baron N. Wrangel, a talented young historian of art, whose premature death during the war is much to be regretted, remarks in an essay entitled "Foreigners in Russia" (published in 1911 in the art journal *Staryé Gody*), there has always been a pronounced antagonism

between Teutonic culture and the Slav character; this fact prevented German influence on Russian art from ever being more than superficial. British influence is brilliantly represented in architecture by a Scotchman, Charles Cameron, one of the favourite architects of Catherine II, while some of the Russian eighteenth-century portraits are reminiscent of Reynolds and Raeburn, though the influence in this case is, of course, indirect.

In conjunction with the forcible occidentalisation of the upper classes, the influx of foreign artists was bound to lead to a schism between the art of the people and that of a small minority educated after the European fashion of the time. Until then, Russian art had been one. The architects who reared the churches of St. Basil the Blessed, at Moscow, and of Kolomenskoe and Fili, spoke a language intelligible to all Russians. The icon painters of Novgorod were sure of being understood not only throughout Russia, but in the whole of the Orthodox Slav world. Peter's reforms put an end to this homogeneity. The dualism which they produced in Russian civilisation, and which some people hold partly responsible for the catastrophe which has overwhelmed Russia, had its counterpart in the history of Russian art. Henceforth there was to be one art for the Court, the aristocracy and the educated class, another for the *plebs*. The former flourished chiefly in the capital, while the latter was condemned to an obscure existence in remote villages. The eighteenth century knew no middle class to serve as a link between masters and serfs; the *bourgeoisie* only grew up in the nineteenth century.

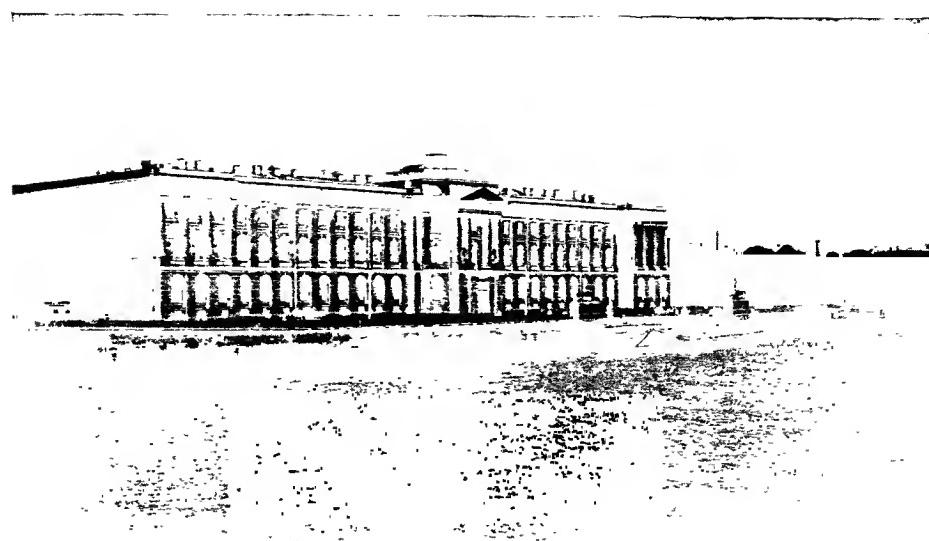
The new, imported art had a more secular character than the old, indigenous art. Civil architecture, of which old Russia has left us so few examples, most of the buildings, including palaces, having been built of wood, acquired great importance. Though churches, even monasteries, continued to be built, the most characteristic structures of the new age are palaces, private mansions, theatres, and public and civic edifices of all kinds.

Painting, completely detaching itself from iconography, which gradually degenerated into a monastic craft, proceeded to treat every variety of subject, beginning with Græco-Roman mythology.

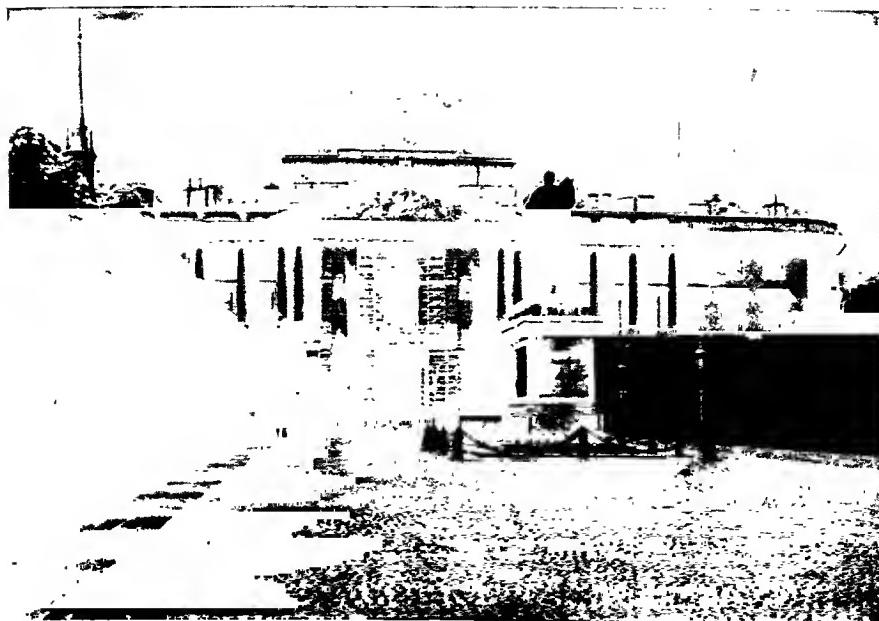
As for Russian sculpture, it was practically only born under the new *régime*, for the ban on that art, pronounced by the Eastern Church in the days of iconoclasm, had hindered its development in old Russia no less than the difficulty of obtaining suitable stone.

The eighteenth century also introduced important new decorative industries, such as the manufacture of tapestry and of art porcelain.

Initiated by Peter the Great, the work of building and embellishing the new capital was continued with no less ardour by his successors, notably by his daughter, the splendour-loving Empress Elizabeth, by Catherine II,



THE ACADEMY OF FINE ARTS, PETROGRAD (1765-1772). ARCHITECT : VALLIN DE LA MOTHE



CASTLE OF ST. MICHAEL, PETROGRAD (1796-1798). ARCHITECTS : BAJENOV AND BRENNA
(Formerly surrounded by a moat with drawbridge. Scene of the murder of its
builder, the Emperor Paul I, in 1801.) In the foreground : Equestrian statue of
Peter the Great by Rastrelli the Elder (1743)

RUSSIAN ART OF THE PETERSBURG PERIOD

one of the greatest of builders, and by Alexander I. All the phases of European art of the eighteenth and nineteenth centuries are reflected in the architecture and decoration of the buildings of St. Petersburg. For a couple of generations foreign architects held undisputed sway, but after the foundation, in 1758, of the Academy of Arts, which provided training for native talent, they found worthy rivals in their Russian colleagues. Moreover, foreign styles were modified by local influences,

This fact—a melancholy one for lovers of the northern capital—lends additional interest to a book wherein is described the leading part which the city on the Neva, now a dethroned monarch among the capitals of Europe, played for two centuries as the centre of the artistic life of Russia.

In his concluding chapter, M. Réau discusses the present condition and future prospects of Russian art.

During the French Revolution, he observes, many



COLONNADE OF THE ALEXANDER PALACE, TSARSKOE SELO (1795). ARCHITECT : QUARENghi
(Favourite residence of Nicholas II, from where he and his family were conveyed to Siberia in 1917)

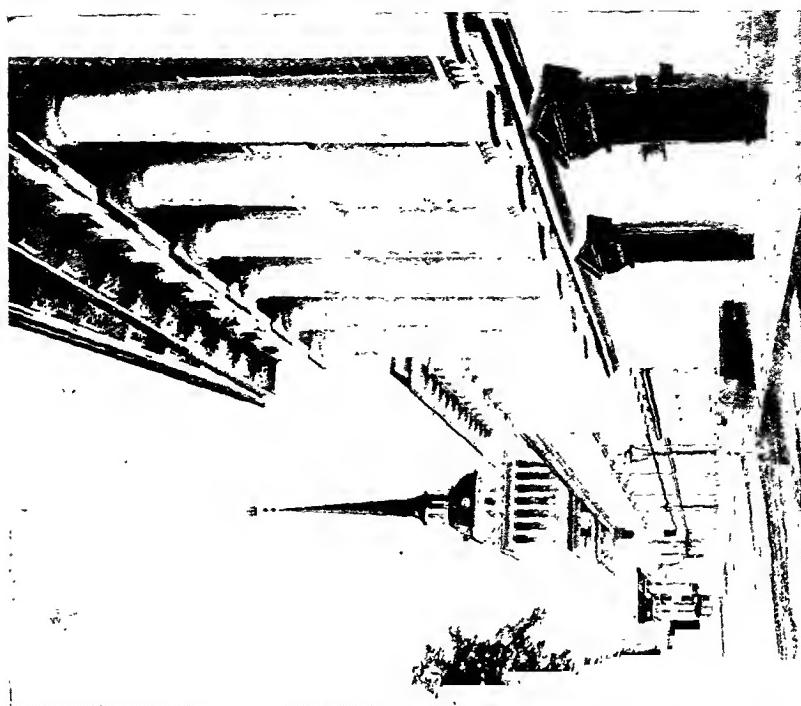
and classical architecture, especially, became so acclimatised as to deserve the name of a national style.

Besides palatial edifices in the capital and its environs worthy to be compared with anything of the kind in Western Europe, charming country houses were built in the classic style by the nobility on their estates in various parts of Russia. Many of these " nests of gentlefolk," so attractively portrayed in Russian novels, are now only memories, having been wantonly destroyed, with all their contents, during the recent revolution.

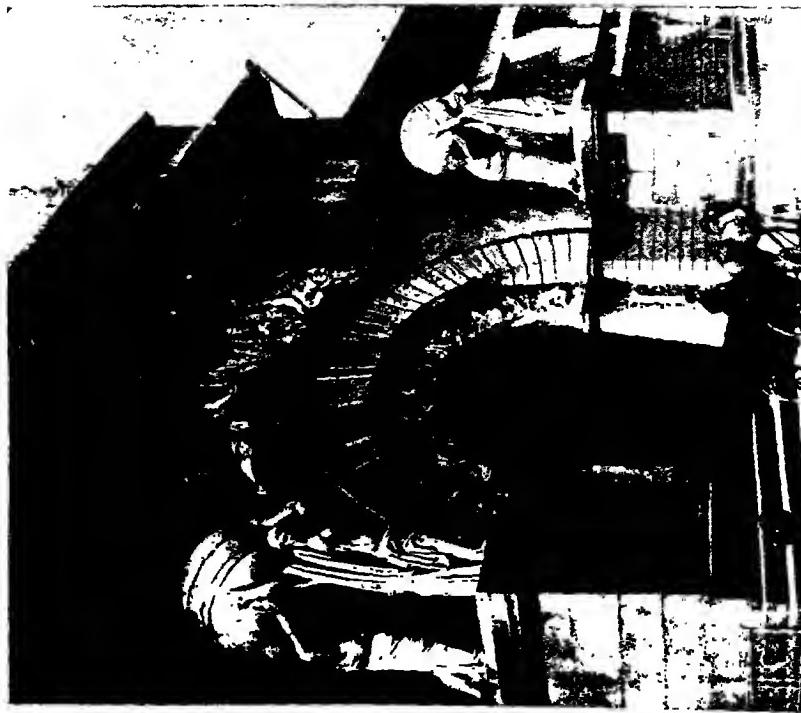
The revolution has also struck a death-blow at St. Petersburg by causing the removal of the seat of government back to Moscow. Thus the " Petersburg period " of Russian art seems to be definitely closed.

artists, including some of the most eminent, never stirred from Paris. But the moral, not to speak of the physical, conditions in Soviet Russia are such that almost every artist worthy of the name has been driven to seek refuge abroad. Apart from all other considerations, the fact that bolshevist rule has caused the exodus *en masse* of practically the whole of intellectual Russia suffices alone to condemn this régime, at the same time revealing the secret of its weakness.

Russian art has thus been divided into two diverging currents, the artists who have emigrated being out of touch with those who have remained in Soviet Russia. The latter, in obedience to the powers that be, have endeavoured to devise a " proletarian art " to take the



THE ADMIRALTY, PETROGRAD (1806-1810). PRINCIPAL FAÇADE
ARCHITECT: ZAKHAROV



THE ADMIRALTY, PETROGRAD (1806-1810). ARCHITECT: ZAKHAROV
PRINCIPAL ENTRANCE. SCULPTURAL GROUPS BY SUTCHEDRIN (1812)

RUSSIAN ART OF THE PETERSBURG PERIOD

place of the art of the crushed and despised *bourgeois*. The attempt, says M. Réau, has signally failed.

On the other hand, the many Russian artists now living abroad have also not as yet produced anything very noteworthy.

Some time must necessarily elapse before the effect of the revolution upon art takes definite shape. A period of upheaval, misery, and ruin is not one in which we may expect to witness an artistic renaissance. It is, nevertheless, possible to hazard a guess as to some of the general lines on which art may develop in Russia in the future. The decentralising tendency of the Bolshevik revolution will presumably have the effect of calling to life new art centres in the provinces, which until now were dominated, artistically and intellectually, by the two capitals. Perhaps in the federative Russia of the future we shall witness the birth of a Ukrainian, a Siberian, and other local or regional arts. This would be of great benefit to an immense country like Russia, which "two beacons, however powerful, are not sufficient to illuminate." Furthermore, Russian art will in all probability strive more earnestly than ever in the past to become a national art. The national consciousness, which has been slumbering too long, seems to be slowly reawakening. A religious revival is already in progress, in spite of—or, perhaps, thanks to—the violent efforts of the atheist rulers of the country to destroy all religious belief, and primarily to disorganise and

discredit the Orthodox Church. Similarly, the systematic stifling of patriotic feeling by internationalists, mostly of non-Russian origin, may, it can reasonably be conjectured, ultimately have the effect of rousing the latent patriotism of the people.

When the happy time comes for Russian refugees to return to their country, they will bring with them, as a result of their sojourn abroad, a keener sense of their individuality. M. Réau, who doubtless has had many opportunities in Paris of studying the mentality of these refugees, observes that never did Russians feel themselves more ardently Russian than during these years of exile and misery in foreign lands. He warns Russian artists, however, to avoid the pitfall of a too narrow-minded, chauvinistic conception of what Russian art should be. In particular, they would be badly inspired indeed, he declares, if they abjured the traditions of classic art, as bequeathed to them by St. Petersburg, and revived the old Slavophil illusion of regarding the destinies of Russia, her history, her civilisation, and her art as being subject to special laws unknown to other countries. The French author's view, it should be added, is in complete accordance with that held by the best and most authoritative Russian art critics of the present day. What Russia wants is a *national*, but not a *nationalist*, art, equally far removed from revolutionary exaggerations on the one side, and from a pseudo-mediæval reaction on the other.

Strawberry Hill

BY CHARLES E. SAYER [A.]

Strawberry Hill is in the market, and some account of this once famous house may interest architects.

The student of the Walpole letters who makes a pilgrimage to the place is at first surprised at its size. Either from his familiarity with great houses, or from an urbane convention of modesty, Walpole always refers to it as a small place—"a plaything house," whereas "mansion" would be nearer the mark, even before the nineteenth century additions.

Its general aspect is rather forlorn. The original stucco has been replaced by Portland cement with funeral effect, the meadows are intersected by a new road, and the whole place is hemmed in by streets of tiny houses. Altogether it has the effect of a noble of the *ancien régime* hustled by a crowd of *sans-culottes*. The garden—judging from old prints—is, however, improved since an erring footman lacerated Horace's feelings by hanging himself in it.

Within it is much easier to recapture the spirit of the letters. You enter in the oldest portion (the remains, probably, of the house built late in the seventeenth century by a retired coachman), with small, low-ceiled rooms, mount the "Baronial" stairs to the fine library, the really splendid gallery, and, finally, to the round drawing-room, which marks the end of the original house and beyond which is the nineteenth century wing.

The "Gothick" decoration, which caused such a hubbub, is, of course, only skin deep, a sort of veneer in spirit resembling the French *rococo*, but it is applied with great taste, and the effect is quite charming. Walpole and Bentley sought out forms and ornament from tombs and chantries, and paraphrased them to their liking; there is no archaeological copying; it is all pure fantasy, recalling Bentley's frontispiece to Gray's *Elegy*. The fan vaulting to the gallery, for instance, copied from Henry VII's Chapel, makes no pretence to be stone; its small scale and delicate intricacy proclaim it a plaster ceiling. Much is made in the letters of the stained glass, but it is rather disappointing, mostly German and Swiss grisaille of the sixteenth and seventeenth centuries, though some of the armorial glass made for the place is surprisingly good. The only architect employed was Mr. Essex, of Cambridge, who designed the Beauclerc hexagonal closet built in 1776, the last addition to the original house, and who, perhaps, may claim the title of the first architect of the Gothic revival. The beautiful scagliola inlaid marble mantel in the round drawing-room, however, Walpole says, was copied from Edward the Confessor's tomb, "improved by Mr. Adam."

Walpole's slender shade, if it wander here, must find much disconcerting and distressing; but the vibrations of the note he struck have not yet wholly ceased.

The Acoustics of the Auditorium

BY G. A. SUTHERLAND, M.A.

THE subject of the acoustics of the auditorium is one of great importance to the community, and, in view of this importance, one which has received singularly little attention from physicists in this country. From time to time a more than ordinarily bad case focuses public attention on the problem ; and at such times it is customary to state that not only is the question one to which no answer has yet been pro- pounded, but that it is a question to which science can have nothing to say. Indeed, the subject has been invested with a quite unwarranted air of mystery, so that it is common to hear the statements that two identically constructed auditoria may have quite different acoustic properties, and that any prediction of what will happen in a given case is at the best a conjecture.

Such an attitude, it need hardly be said, is an im- possible one for any scientific man to adopt, and it is the purpose of this paper to dispel the atmosphere of super- stition which surrounds the problem and to show not only that it is capable of solution on scientific lines, but that, in the face of great difficulty, it has been so solved, not, perhaps, completely, but so nearly completely that such a thing as an acoustic horror is quite inexcusable. The principles that theory and laboratory experiment have united in formulating have been applied exten- sively in practice, particularly in America, and the re- sults, both in predicting acoustical quality in advance and in remedying defects in buildings already con- structed, have been a striking confirmation of what might otherwise have been felt to be work purely of academic interest.

To understand the nature of the inquiry and to apply its results it is necessary to be acquainted with the nature of sound and the main phenomena of sound propagation. Some apology is, perhaps, needed for introducing considerations of an elementary character ; but in view of the strange opinions on the subject expressed by otherwise quite reputable persons—opinions which show that the underlying physical consider- ations are not appreciated—it has seemed well to devote some space to an attempt to make familiar the foundation on which the structure that is to follow is built.

The greatest physical generalisation of the nineteenth century was the doctrine of the conservation of energy, the theorem that energy is never created and never destroyed, that the changes in energy that we observe consist merely in the transformation of one kind of energy into another. In the gross mechanisms that we invent this transformation is always in the same direc- tion, always tending to the degradation of energy, so that ultimately it is all converted into the lowest form of

energy, the energy of heat. Heat energy consists of the vibrations of the minute molecules of a body, and it is the lowest form of energy because this agitation is entirely unco-ordinated and undirected. The mole- cules dash about hither and thither without rhyme or reason ; and in the absence of some mechanism of molecular dimensions and with molecular discrimination—something in the nature of a policeman who can regulate the molecular traffic—the energy is unavailable for our use. Sound is a form of energy, and it cannot be got rid of by being broken up or scattered, however thorough this scattering may be. It remains audible as sound unless and until it suffers conversion, either by some degrading force, such as friction, directly into heat, or into some other form which will eventually become heat.

If to a balloon or bubble containing a mixture of oxygen and hydrogen in suitable proportions a flame be applied, a sound is heard by everyone in the room in which the experiment is performed. The chemical union of the gases produces a sudden evolution of heat, and this heat causes the gases to expand. The sudden expansion of the sphere produces a compression in the shell of air just surrounding it, and this shell, being elastic, on recovery passes on the compression to the shell of air next outside it, and so the compression travels outwards in ever-widening spherical shells until it impinges on the tympanum of someone's ear, and the sensation of sound is experienced. The expansion of the original gases leaves a void or rarefaction behind, and in recovering from their compression they over- shoot the mark, and by a repetition of the process the rarefaction is propagated outward on the heels of the condensation. The condensation and rarefaction together constitute what is called a wave of sound. Sound, then, is propagated by a form of wave motion, the essence of all wave motion being that while the wave itself moves forward in one direction, the particles par- ticipating in the wave oscillate backwards and forwards but do not get far from their positions of rest. In water waves the motion of the particles is at right angles to the motion of the wave, in sound waves their motion is in the same line.

A sound wave is more often produced by the con- tinued impact of a vibrating body on the air than by a single shock such as we have considered. In either case the condition of producing a sound wave is that the impulse shall be sufficiently sudden, or, in other words, that the vibrations shall succeed each other sufficiently rapidly for the compression of the air to take place before it has, so to speak, time to get out of the way.

Experiment shows that sounds audible to human

THE ACOUSTICS OF THE AUDITORIUM

beings are produced when the number of vibrations per second lies between 16 and 38,000 (for music the corresponding range is from 40 to 4,000); but the range varies with different persons and diminishes with age.

When the vibrations of a body are periodic—that is to say, when the same mode of vibration repeats itself at regular intervals, we experience the sensation of a musical tone; when the vibrations are not periodic, but irregular, then we experience a noise. If the coalman could deliver his coal so that the lumps reached the ground at a constant rate the result would be musical. As it is, the irregular delivery—*i.e.*, the superposition of sounds of different periods—produces an effect similar to that which may be produced by depressing several keys of the pianoforte at the same time. If the ticks of a watch were as rapid as 100 a second they would blend into a single note. The hum of the humming bird is the result of such a rapid regular flapping of its wings.

Experience shows that sounds of different pitches travel at the same speed in a given medium—otherwise it would be impossible to distinguish the tune played by a band at a little distance since the time would be altered. This speed in air at 60 deg. F. is about 1,120 feet per second. In water it is about $4\frac{1}{2}$ and in steel about 16 times as great.

So long as the sound is travelling in a single medium it spreads out in ever-widening spheres, the direction of motion of any point of the wave front remaining the same. But so soon as it reaches the boundary of another medium in which its speed is different the wave splits up. Part of it is reflected back through the first medium and part of it is refracted or bent through the second. The laws of reflection and refraction are well known, and both phenomena play a part in determining the acoustical quality of a room, though refraction enters into the problem only in exceptional cases.

A phenomenon of great importance in certain designs of auditorium is that known as *interference*. If two waves of any kind are superposed the resulting wave is an addition of the effects of both. Should the waves be of the same length and in the same phase—*i.e.*, if condensation falls upon condensation and rarefaction upon rarefaction, then the result is an intensification of the sound. If, however, the waves be out of step by half a wave-length, so that the condensation of one falls on the rarefaction of the other, and *vice versa*, then, if the original intensities of the sounds be just equal, the two will neutralise each other, and there will be silence. This process of neutralisation, as has been said, is known as *interference*. The phenomenon is very simply observed by rotating a tuning-fork near the ear. Four times in every revolution there is silence owing to the superposition of waves out of step. This is illustrated in Fig. 1, in which the thick lines indicate the directions along which interference takes place. When a wave is

reflected back upon itself from a wall there are alternate points of maximum and minimum vibration called anti-nodes and nodes respectively. These correspond to points of extra intensity and of comparative silence in an auditorium. The distance between two such nodes is half a wave-length, and their presence may readily be demonstrated with suitable apparatus.

Experiment shows that what we call the pitch of a note depends on the frequency—*i.e.*, on the number of vibrations per second. The octave of a note has twice its number of vibrations. Since sounds of all pitches travel the same distance in a second, it follows that the wave-length of the lower notes is much greater than that of the higher. As the frequencies of audible sounds vary from 16 to 38,000 per second, so the corresponding wave-lengths vary from 70 feet to about one-third of an inch.

The wave-length of a note is of great significance in connection with the next feature of wave propagation that we have to consider—*viz.*, the bending of sound round obstacles or corners, which is known as *diffraction*. This is a characteristic of all forms of wave motion and is quite familiar in the case of sound. The condition that sound shall bend round an object is that the dimensions of the object shall be comparable with the wave-length of the sound. A comparatively small object will stop a sound of very high pitch, but it requires a large one to stop a sound of low pitch, just as a ripple on the surface of water will be stopped by a rock but a long wave will bend right round it. When a powder magazine explodes the sound waves produce so much displacement in the air that they blow in all the windows in the neighbourhood. As the sound is one of low pitch, its wave-length is great, so that it readily bends round houses, and the windows are blown in, not only on the sides nearest the magazine, but also on the opposite sides. The same kind of bending takes place in the case of light; but, since there the wave-lengths are of the order of about a forty-thousandth of an inch, the phenomenon is not evident without the aid of special apparatus.

It is worth while here to note an important difference between the reflection of sound and that of light. Light is regularly reflected only from a highly polished surface. Because of the minuteness of the waves, correspondingly minute scratches produce irregular scattering. But the wave-length of low musical notes, as we have seen, may be as much as 30 feet, and scratches in depth about one-tenth of this—*i.e.*, 3 feet—and in breadth at least 15 feet will be required to produce scattering of such sounds. For speech the corresponding depth is from 3 to 5 inches, and the breadth 15 to 25 inches.

Bodies capable of vibrating can be forced to vibrate in the period of some sounding body in contact with them, a familiar instance being the case of a tuning-

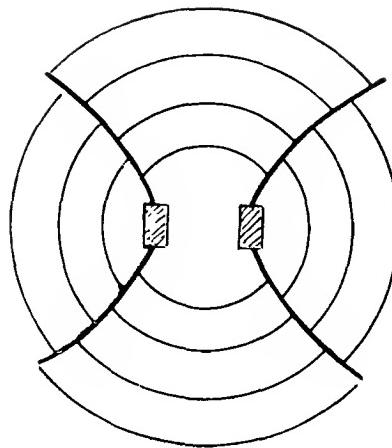


FIG. 1.—Showing lines of interference round the prongs of a tuning fork

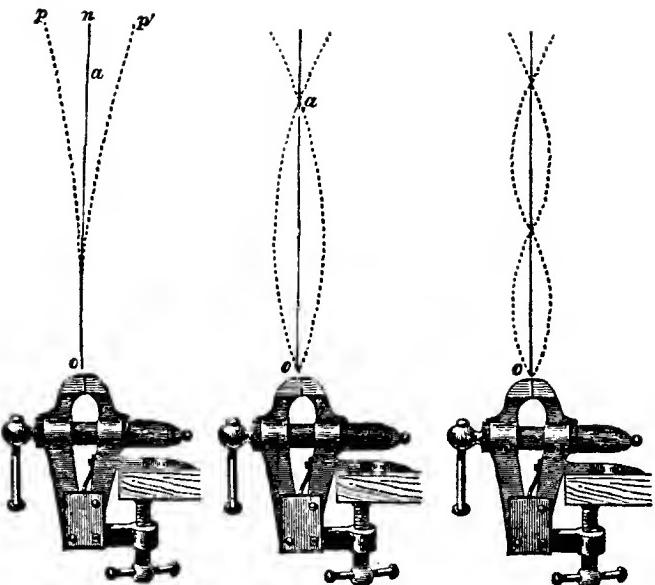


FIG. 2.—Showing different possible modes of vibration of a rod clamped at one end

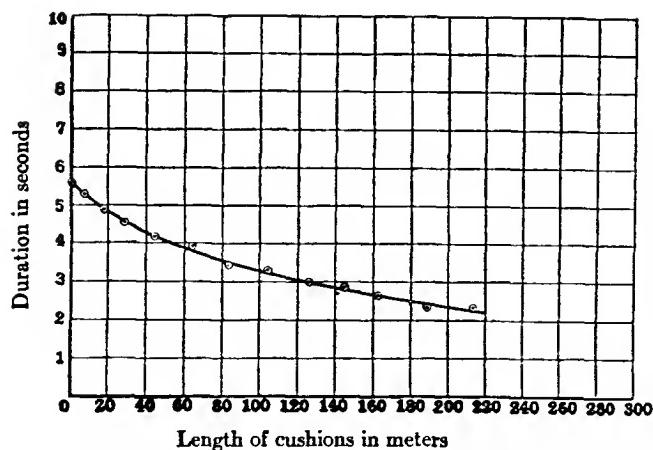


FIG. 3.—Curve showing the relation of the duration of the residual sound to the added absorbing material. (Fogg Art Museum—University of Harvard)

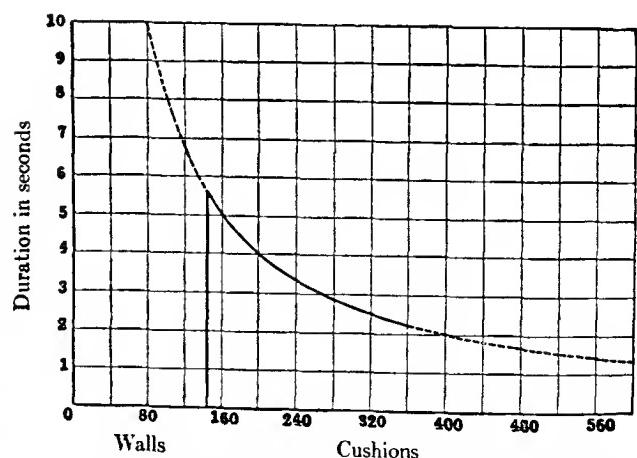


FIG. 4.—Curve illustrating the absorbing power of the Fogg Art Museum before the introduction of cushions

THE ACOUSTICS OF THE AUDITORIUM

fork with its end on a table. It is this *forced vibration* by some sounding-board or sounding-box that produces the intensity of sound in many musical instruments. The sound of a piano string would not be audible but for the forced vibration in the wood, as is realised when a suitably isolated wire is plucked.

While a body may be forced to vibrate in the period of another, yet every body has one or more natural periods of its own to which it will most readily respond. If the bob of a pendulum be tapped gently every now and then nothing much happens, but if the taps are timed so that they always occur at the same stage of a vibration the amplitude is soon increased enormously. This is an illustration of a general principle known as *resonance*. It applies not only to sound, but to vibrations of every kind, and is familiar to-day because of the prominent part it plays in wireless telephony.

One sounding-wire will cause another of the same natural period to vibrate in unison with it. A tuning-fork will cause a column of air of the same natural period to sound with it. *Forced vibration* and resonance also play their part in the distribution of sound in an auditorium.

Musical sounds not only have loudness and pitch, they also have quality. Notes from a piano and a violin are essentially different in quality. The loudness of a note depends on the *amplitude* of the wave—*i.e.*, on the maximum distance from the undisturbed position travelled by the particles in vibration. The pitch depends on the number of waves per second, and so on the *length* of the wave; while the quality depends on the *shape* of the wave. The simplest form of wave is that known as a sine curve. No musical instrument gives so simple a wave as that; but an elegant mathematical theorem due to Fourier shows that the most complicated of waves can be built up by the superposition of a series of such sine waves, and an instrument called an harmonic analyser has been invented which receives the complex curve at one end, and, when the handle is turned, yields up the series of component sine curves at the other.

Whence in a musical tone do these various sine waves come? Each must correspond to a mode of vibration, and we conclude that a sounding body must vibrate in many modes at once. That this happens may readily be shown by experiment. Fig. 2 shows different possible modes of vibration of a rod with one end clamped in a vice, and by suitable excitation these may be made to take place simultaneously. And the cause of different qualities of the notes emitted by a wire plucked at different points may be illustrated by showing the presence of different modes of vibration in the different cases. The simplest possible mode of vibration is called the fundamental, the other higher modes are called overtones. In the design of an auditorium for music it

will be shown that considerations of this kind may not be overlooked.

We have now surveyed the main phenomena of sound and are in a position to consider their application to the acoustics of an auditorium. In this connection it is worth while quoting the words of Vitruvius, *De Architectura*, Liber V, Cap. VIII. (*De locis consonantibus ad theatra eligendis.*)

" All this being arranged, we must see with even greater care that a position has been taken where the voice falls softly and is not so reflected as to produce a confused effect on the ear. There are some positions offering natural obstructions to the projection of the voice—as, for instance, the *dissonant*, which in Greek are termed *κατηχοῦντες*; the *circumsonant*, which with them are named *περιχοῦντες*; and, again, the *resonant*, which are called *ἀντηχοῦντες*. The *consonant* positions are called by them *συνηχοῦντες*.

" The dissonant are those places in which the sound first uttered is carried up, strikes against solid bodies above, and, reflected, checks as it falls the rise of the succeeding sound.

" The circumsonant are those in which the voice, spreading in all directions, is reflected into the middle, where it dissolves, confusing the case endings, and dies away in sounds of indistinct meaning.

" The resonant are those in which the voice comes in contact with some solid substance and is reflected, producing an echo and making the case terminations double.

" The consonant are those in which the voice is supported and strengthened and reaches the ear in words which are clear and distinct."

This is interesting, because it is an admirable analysis of the problem of auditorium acoustics. To adapt it to modern usage we must substitute for the word dissonance, interference; for the word circumsonance, reverberation; for the word resonance, echo. The word consonance stands, for we have no other word in use to-day to express the same idea. To read such a definiteness into the words of Vitruvius is probably unjustifiable, but at least he would seem to have had the root of the matter in him.

Let us consider the simplest possible type of auditorium—a level plain with the ground bare and hard, a single person for an audience—it is clear that to a first approximation the sound spreads in a hemispherical wave, diminishing in intensity as it increases in size. If, instead of being bare, the ground is occupied by a large audience, the sound diminishes in intensity even more rapidly, as it is now absorbed. The air particles in the wave are entangled in the pores of the clothing, and by friction the energy is converted into heat. The upper part of the sound wave escapes unaffected, but the lower edge—the only part that is of service to an audience on a plain—is rapidly lost. The first and most

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

obvious improvement is to raise the speaker above the level of the audience ; the second is to raise the seats at the rear; the third is to place a wall behind the speaker to reflect forward the back portion of the wave. The result is, in effect, the classic theatre. These changes being made, still all the sound rising at any considerable angle is lost through the opening above, and only part of the speaker's efforts serves the audience. When to this auditorium is added a roof the average intensity of sound throughout the room is greatly increased owing to reflection downwards from the ceiling, this being especially so in the case of sustained tones, and the intensities at the front and rear are more nearly equalised. If, in addition, galleries be constructed to elevate the distant part of the audience and bring it nearer to the front we have the general form of the modern auditorium.

The three necessary and sufficient conditions of good hearing in an auditorium are uniform and adequate loudness, clearness or distinctness and accurate rendering. Distinctness involves freedom from overlapping in successive sounds and also freedom from extraneous noise. For accurate rendering the simultaneous components of a complex sound should maintain their proper relative intensities. So many factors contribute to the satisfaction of these conditions that the problem of assuring them is necessarily complex. But it is a perfectly determinate one. First we must enumerate these various factors and discover and define quantitatively in terms of them what we mean by good acoustics. Secondly, we must devise means by which we may estimate, again quantitatively, how far they will be realised in any planned or existing auditorium and how the necessary modifications in shape and materials may be ascertained.

When a speaker delivers an address the sound proceeds from him in waves to the boundaries of the room unless it is absorbed on the way. At the walls it may be reflected, or transmitted, or absorbed. In general, it will suffer all three kinds of treatment in relative proportions which depend on the character of the walls. Hard and smooth walls will reflect the major part of the sound, while porous and yielding walls will reflect very little. Eventually, after successive impact on different surfaces, the whole of the sound will be absorbed.

The main effects of reflection are two. If the room is not too large the first effect will be to produce the same average loudness at different points of the room. In the case of a room 40 feet square reflections will occur at least 27 times a second, since $\frac{1,120}{40} = 27$. These many reflections reinforce the original sound, and so adequate consonance is assured. Consonance is the one acoustical virtue that is positive, and it is the characteristic virtue of the modern theatre. But the numerous reflections produce other qualities as well. If the walls are hard, mechanical energy is not readily imparted to

them, and so little energy is absorbed at each impact. Very many reflections occur before the sound dies out. This produces slow decay or *reverberation*, which is the most common defect in modern audience halls. Consonance makes for loudness, but reverberation detracts from distinctness.

It is common to credit the classic theatre with perfect acoustics, probably because it is easier to associate perfection with something distant in space and time and of which one has no personal knowledge. The reputation is in most respects deserved, but contemporaneous evidence unites with physical theory in making it impossible to accord the theatre unqualified praise. Travellers make a point of testing such ruins of classic theatres as remain, and find the perfection which they are already convinced is there. If the acoustics are perfect now, they certainly cannot have been so originally, when complete *scena* and the enclosing walls were present. But in any case the absence of a large audience vitiates the test as it would in a modern theatre, though the effects are different in the two cases. The presence of an audience diminishes the reverberation, and it diminishes the loudness of the sound. In the classic theatre, occupied or unoccupied, there was little reverberation ; that, in fact, was its merit. But the fact that there was little reverberation is also evidence that there was only slight architectural reinforcement of the voice.

We are not, however, dependent on such *a priori* considerations for our evidence. That there was insufficient consonance is shown by the use of megaphone mouthpieces in both the tragic and the comic masks, and by Vitruvius's instructions for the use of resonant vases. The megaphone mouthpiece must necessarily have been destructive of the finer shades of enunciation, and, presumably for this reason, was seldom used. Vitruvius's instructions for the location of resonant vases are very explicit. The device was rarely tried, and could not have accomplished its purpose. But, though neither of these two schemes proved satisfactory in practice, their very suggestion is evidence that the acoustics of the classic theatre did not satisfy its contemporaries, and that the defect for which a remedy was sought was lack of consonance.

Just as the prime defect of the classic theatre was the lack of that virtue most prominent in the modern auditorium, so reverberation, the commonest defect of the present day, was in the nature of the case almost entirely lacking in the theatre of old. Consonance and reverberation go hand in hand ; their demands are contradictory, and in any given case a balance must be struck between the two.

It is typical of the attitude that has been adopted to the whole question that the attempt is sometimes made to-day to cure the excessive reverberation in churches by introducing vases. The argument evidently has been : The Greek theatre had good acoustics and it

THE ACOUSTICS OF THE AUDITORIUM

had vases ; let us have vases that we, too, may have good acoustics. And this quite regardless of the fact that the defects in the two cases are the direct opposite, and apart altogether from any consideration as to whether the vases contributed at all to the good acoustics of the classic theatre.

When a source commences to emit sound waves, the sound heard first of all grows in intensity, and during this growth the rate of emission is greater than the rate of absorption. Then a maximum is reached, and in this condition energy is being emitted and absorbed at the same rate. This condition persists until the source is stopped, when the absorption continues, and the sound gradually dies away to inaudibility. Both the growth of the sound and its decay are due to the many reflections it undergoes. The laws of this growth and decay, and on what factors they depend, are most clearly brought out by the theoretical analysis of Jaeger. Jaeger's treatment shows that for satisfactory acoustics there should be some relation between the size of a room and the intensity of the sound for which it is to be used. Thus a room too large it is inherently impossible to fashion for satisfactory acoustics in the case of sounds of limited strengths. Adequate loudness can be secured only by conditions which make for excessive reverberation.

Further, he showed that the rate of growth of a sound and its rate of decay depend on the ratio of the total surface of a room to its volume ; and this explains why it is that two rooms having the same proportions but different in size are not acoustically similar ; for the ratio of surface to volume changes with changing size.

The effect of reverberation on speech is easily understood. A speaker can deliver three syllables in a second. If the reverberation of a sound spoken in an ordinary tone of voice lasts for five seconds in any given room, then the sounds of fifteen successive syllables will be heard simultaneously, a state of affairs that militates quite intolerably against our second desideratum—*viz.*, distinctness. Clearly, then, for speech reverberation must be reduced to the minimum consistent with adequate loudness. In a small room this should be less than one second. In a large room a longer period is tolerable, probably because in a large room the speaker realises the necessity of clear and slow enunciation. In music the case is slightly different. Reverberation produces an effect similar to that of the loud pedal in a piano. Some prolongation and blending of notes in music is desirable, but the mixing of words in speech is never an advantage. If a hall is to be used for both, a middle course must be steered. The reverberation must be made somewhat too long for speech, somewhat too short for music, yet fairly satisfactory for both.

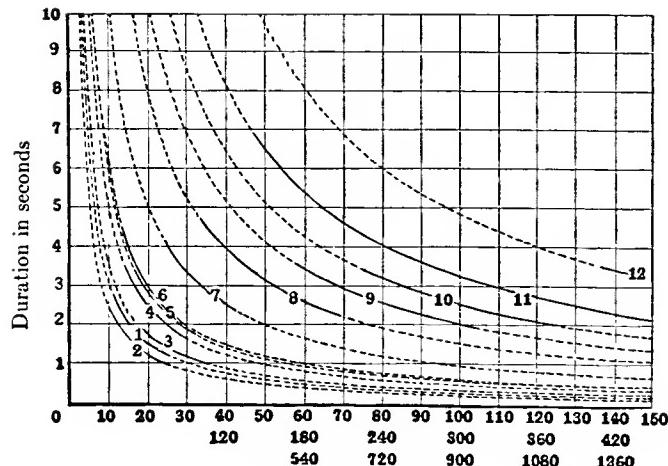
Besides consonance and reverberation, reflection may in larger rooms produce an *echo*. An echo occurs when the wall from which a reflection takes place is at such a distance that the impressions formed by the direct

and reflected sounds are quite distinct. The ear can appreciate two sounds separately if the interval between them is greater than a fifteenth of a second. As the velocity of sound is 1,120 feet per second, this gives the minimum distance of the reflecting walls as $\frac{1,120}{2 \times 15} = 37$ feet. The farther off the wall the more distinct is the echo. In the case of a curved wall the reflection is of a special character. As will be shown later, the curve exercises a focusing action and produces regions of undue intensification and comparative silence. It is almost inevitably a menace to good acoustics. Echoes are clearly inconsistent with distinctness, and sound foci, even if echoes are absent, are inconsistent with uniform loudness. Echoes and sound foci must both be eliminated as completely as possible.

The general principle underlying the cure of excessive reverberation is the introduction of material which will absorb the sound. The reverberation in an empty house is notorious, and the improvement that can be effected by hanging heavy curtains is also a matter of common knowledge. Some of the sound energy in a room will escape through open windows, some will be used up in imparting mechanical energy to the walls, some will pass directly by friction into heat. A hiss is very soon killed by air friction, but in a lower sound this effect is almost negligible. The frictional effects are, however, greatly increased by the presence of porous walls and hangings. No mere modifications of the surface by the introduction of irregularities are of any avail in this connection. The breaking up of smooth surfaces by relief work may eliminate echoes, but it has no effect on reverberation, except in so far as the total surface is increased by the breaking up.

The first systematic study of reverberation was commenced by W. C. Sabine, of Harvard University, in about 1896, and five years later a series of papers appeared embodying the results of this investigation. The investigation commenced with the practical problem of a lecture room in the Fogg Art Museum in the University of Harvard, where a word spoken in an ordinary tone of voice could be heard for about $5\frac{1}{2}$ seconds afterwards. An organ pipe blown at constant pressure was used as source, and the time the sound took to die down to inaudibility when the blowing was stopped was noted. Cushions from a neighbouring lecture theatre were then introduced, and the new time noted. This process was continued until the time of decay to inaudibility had fallen to 2·2 seconds. All the experiments were necessarily carried out at night.

Preliminary experiments showed that there was excellent agreement between the results obtained by the same experimenter at different times and between different experimenters at the same time, that the time of decay was practically the same at all parts of an auditorium, and, thirdly, that the efficacy of an absor-



Total absorbing material

FIG. 5.—Showing the single type of the reverberation curve for rooms of different sizes. (Three different scales are used to reduce the size of the diagram)

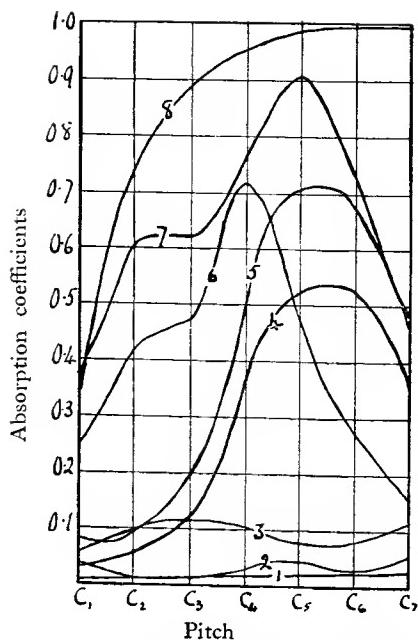


FIG. 6.—Showing the absorbing powers of different materials

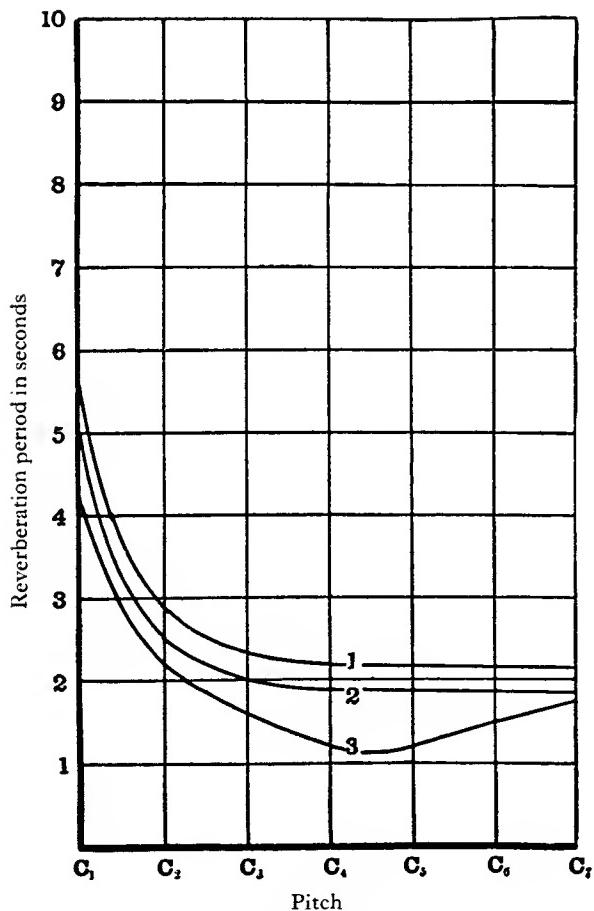


FIG. 7.—Showing the effect on reverberation in the Little Theatre, New York, of the introduction of absorbent material

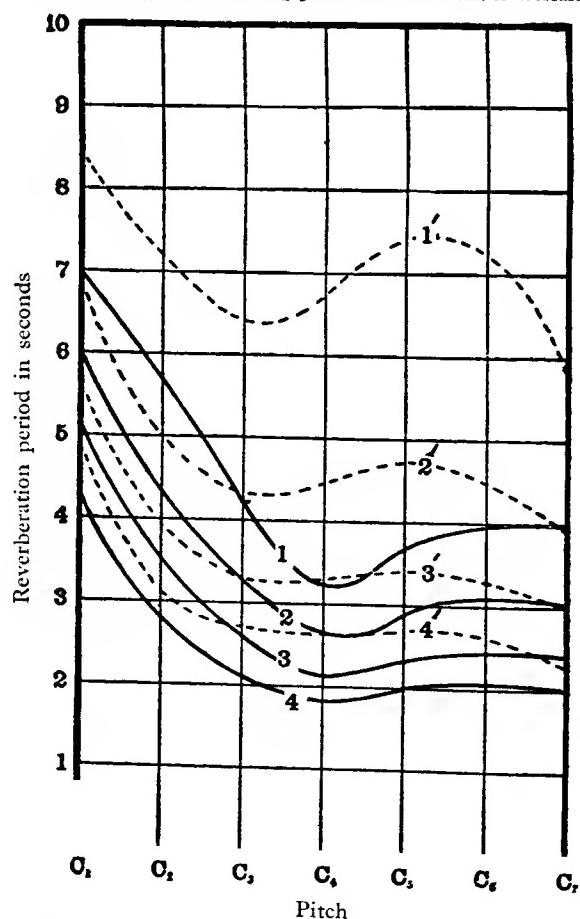


FIG. 9.—Showing the effect on reverberation for different numbers of persons present of lining ceiling and upper part of walls with felt. St. Paul's Cathedral, Detroit. The dotted curves represent the conditions before, the full curves after treatment

THE ACOUSTICS OF THE AUDITORIUM

bent in reducing the period of reverberation is practically independent of its position. The settling of these three points made subsequent work much easier, since any locations could be chosen for source, observer and absorbent.

The results in the case of the Fogg Art Museum are best shown by means of a curve (Fig. 3). The nature of the dotted extension of the curve in both directions, as shown in Fig. 4, will be understood when one considers that if one filled the whole room with cushions the sound would be absorbed instantaneously—*i.e.*, the time would be zero—whereas if there were no absorbent in the room the sound would go on for ever—*i.e.*, it would be infinite. The reason why the time is not infinite when no cushions are present is because the room itself, (the walls, the ceiling, the floor) has an absorbing power. Clearly, then, the curve will tell us the absorbing power of the room in metres of cushions. In this case the value is 146 metres.*

By substituting various materials in turn for the cushions Sabine was able to compare the powers of various absorbents with corresponding areas of Sanders Theatre cushions, and thus with each other. Now, the cushions of a particular lecture theatre in America are clearly not very useful units in which to express absorbing powers in England, and Sabine's next work consisted in finding a comparison between the absorbing power of these cushions and an equal area of something which is readily available anywhere—*viz.*, the open window. The open window may be regarded as a perfect absorber—the only perfect absorber of sound. Experiment showed that the absorbing power of an open window was proportional to the area of the opening, and the next experiments sought to express the value of the cushions as absorbents in square metres of complete absorption. These experiments were attended with great difficulty, for the slightest external noise would upset them, and they were therefore impossible in summer, even at night, owing to insect noises, and could be carried out only on winter nights when there was but the slightest wind. So that, though the open window is the important standard of comparison, the cushions are much more convenient to use in practice when once their absolute value has been determined.

Before quoting the results of these experiments, we may go on to consider further similar experiments in various rooms. These are the more significant because of the diversity of the shapes, sizes and furnishings of the rooms chosen. All the rooms yielded the same type of curve as shown in Fig. 5, although the volumes varied from 65 to 9,300 cubic metres. Anyone with a

slight knowledge of mathematics looking at these curves would immediately conclude that they were rectangular hyperbolæ, and investigation shows that this assumption fits the facts very closely. The characteristic property of a rectangular hyperbola plotted like this is that the product of the distances of any point on it from the axes is the same quantity for any point on the curve. This constant quantity is called the parameter of the curve. So that, expressed in words, each of these curves simply means that for a given room the total absorbing power \times time of reverberation is constant. In other words, if we increase the absorbing power A, the time T is proportionally decreased. Further, an examination of the parameters of the different curves shows that every one is proportional to the volume of the appropriate room, so that for any room we have the relation :

$$\frac{\text{Absorbing Power} \times \text{Time of Reverberation}}{\text{Volume}} = \text{a constant quantity.}$$

The value of this constant quantity depends, of course, on the initial intensity of the sound and on the units adopted for absorbing power. By comparing the times of reverberation, when 1, 2, 3 and 4 similar organ pipes were used, Sabine was able to show that the sound he was using had an intensity one million times the minimum audible intensity; and that in this case the constant works out at 0.164 if the absorbing power be reckoned in square metres of complete absorption and the volume of the room in cubic metres. If square feet of complete absorption and cubic feet of volume are the units, then the constant is 0.050. The following table gives most of the results obtained by Sabine, using an organ pipe of pitch C4, 512 :—

	For Feet or Metres.
Open window	1.000
Brick wall, 18-inch thick, set in cement	0.032
Brick wall, 18-inch thick, set in cement, painted two coats oil	0.017
Plaster on wood lath, 2-inch air space, studding at 14-inch centres	0.034
Plaster on wood lath, 2-inch air space, studding at 14-inch centres, with $\frac{1}{8}$ -inch finishing coat	0.028
Plaster on metal lath, 2-inch air space, studding at 14-inch centres	0.033
Plaster on hollow tile, $\frac{3}{8}$ -inch coat and $\frac{1}{8}$ -inch finishing coat	0.020
Glass, single thickness	0.027
Wood sheathing, $\frac{3}{8}$ -inch pine on studding at 14-inch centres	0.104
Akoustolith tile	0.382
Jute felt 1.1 cm. thick	0.18
Jute felt 2.2 cm. thick	0.54
Jute felt 6.6 cm. thick	0.77
Hair felt 2.5 cm. thick	0.52
Hair felt 2.5 cm. thick mounted 6 inches from wall	0.68
Linoleum, loose on floor	0.12
Cork 2.5 cm. thick, loose on floor	0.16
Oriental rugs (extra heavy)	0.29
Carpet 0.8 cm. thick	0.20
Cheese cloth	0.019
Cretonne cloth	0.15

* It should be remarked that the air itself acts as an absorbent owing to the heat changes involved in its compression and rarefaction, but this effect is far too small to affect noticeably the reverberation period for any except the highest pitched of audible sounds.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Shelia curtains .. . . . .	.. .. .. .. ..	0·23
Audience (per square metre or square foot as ordinarily seated) .. . . . .	.. .. .. .. ..	0·96

SPACIAL UNITS.

	For Feet.	For Metres.
Audience per person as ordinarily seated	4·73	0·44
Audience per isolated man	5·16	0·48
Audience per isolated woman	5·80	0·54
Ash chair	0·17	0·016
Cloth cushion to cover a single seat	1·45	0·135
Hair cushion to cover a single seat	1·77	0·165
	to 1·93	to 0·18
Elastic cotton (cotton wool?) cushion, covered canvas and short nap plush	2·04	0·19
Upholstered chair (hair and leather)	3·22	0·30
Upholstered settee (hair and leather) per seat	3·01	0·28

Sabine's experiments did not by any means cover the whole range of building materials, and work is necessary to measure the coefficients for materials commonly used in England. But where a particular material has not been worked out the absorption coefficient may be taken as that of whatever material is nearest in character to the one being used, and the error in doing this may be shown in the case of hard surfaces to be negligible.

The practical application of this work can best be illustrated by working out an example, and we may take the first hall to which the application was made in advance of construction—viz., the New Boston Music Hall.

We have not yet discussed the best period of reverberation for a hall used for orchestral music, though we have seen that it will certainly be desirable to have a longer period than for speech, and musical experts complain more often that it is too short than too long. In the preliminary discussion of the New Boston Hall an examination of the plans of numerous buildings known to be satisfactory showed that their reverberation was much greater than in the usual theatre for drama. The final discussion was based only on two buildings, the Old Boston Music Hall and the Leipzig Gewandhaus. The first intention was to copy the Leipzig Gewandhaus, which was known to have good acoustics, on a larger scale. "The often repeated statement that a copy of an auditorium does not necessarily possess the same acoustical qualities as the model," says Sabine, "is not justified. The fact is that exact copies have rarely been made and can hardly be expected. Constant changes and improvements in the materials used for interior construction in the line of better fireproofing have led to the taking of liberties in what were probably regarded as non-essentials. This has resulted in a changed absorbing power of the walls. Our increasing demands in regard to heat and ventilation, the restriction on dimensions enforced by location, the changes in size imposed by the demands for different seating capacity, have prevented in different degrees copies from being copies and models from successfully serving as models. So

different have been the results under what was thought to have been safe guidance, but a guidance imperfectly followed, that the belief is current that the whole thing is beyond control. Had the New Boston Music Hall been enlarged from the Leipzig Gewandhaus to increase the seating capacity 70 per cent., which, preserving the same proportions, would have meant doubling the volume, and then built, as it is being built, according to the most modern methods of fireproof construction, the result, unfortunately, would have been to confirm the belief, as will presently be evident." Fortunately, calculation was applied in advance of construction, and the acoustic comparison of the three halls as regards reverberation is as follows:—

Materials.	Leipzig Ge- wand- haus.	Old Bos- ton Hall.	New Bos- ton Hall.	Ab- sorp- tion Coeffi- cient.	Leipzig Ge- wand- haus.		Old Bos- ton Hall.	New Bos- ton Hall.
					Number of Units (Metres).	Absorbing Powers.		
Plaster on Lath ..	2,206	3,030	1,040	0·033	73	100	34	
Plaster on Tile ..	0	0	1,830	0·025	0	0	46	
Glass ..	17	55	22	0·027	0·4	1·5	0·6	
Wood ..	235	771	625	0·061	14	47	38	
Drapery ..	80	0	0	0·23	18	0	0	
Drapery ..	0	4	0	0·15	0	0·6	0	
Audience ..	1,517	2,391	2,579	0·44	667	1,052	1,135	
Orchestra ..	80	80	880	0·48	38	38	38	
Totals ..	..	..	..	..	810	1,239	1,292	
Volumes (Cubic Me- tres) ..	..	11,200	18,400	16,200	..	..	..

The volumes and the total absorbing powers being determined, we can now calculate the times of reverberation from our formula :

$$T = \frac{0·164 V}{A}$$

which gives us as the times in seconds :

Leipzig Gewandhaus .. . . . .	.. .. .. .. ..	2·30
Old Boston Music Hall .. . . . .	.. .. .. .. ..	2·44
New Boston Music Hall .. . . . .	.. .. .. .. ..	2·31

In other words, the new hall, although having a seating capacity for over 1,000 more than the Gewandhaus and nearly 200 more than the old hall, has a reverberation period between the two, and much nearer that of the Gewandhaus.

It is worth while contrasting this with the result that would have been obtained had the original plan been followed of reproducing the Gewandhaus on an enlarged scale. Assuming perfect reproduction of all proportions with similar materials, the volume would have been 25,300 cubic metres, and the absorbing power 1,370, resulting in $T = 3·02$, a period considerably in excess of that chosen.

It has been pointed out that Sabine's table gives no values of absorbing powers for many of the building materials commonly used in this country. As has been said, research is necessary in this direction; but in the case of hard materials it will be sufficiently accurate if we assume the value of a material similar in character,

THE ACOUSTICS OF THE AUDITORIUM

the reason being that the contribution of the hard surfaces in a room to its absorbing power is usually a very small proportion of the whole. Suppose, for example, we are dealing with stone, marble or concrete. The absorption coefficient will certainly be less than that of hard plaster, for which the coefficient is 0.028. If we assume the value 0.020, and subsequently it is shown that the true coefficient is 0.016, then our error in the absorbing power of the hard surfaces is 25 per cent. But, to take the London County Hall as an example, the contribution of the hard surfaces to the whole absorbing power is only about 7 per cent. So that the error involved in the assumption is only 25 per cent. of 7 per cent.—*i.e.*, 2 per cent. In other words, a calculated reverberation of 2.04 might mean a true reverberation of 2.00—quite a negligible difference.

Sabine's experience in connection with the New Boston Music Hall led him to suppose that what in the opinion of musical experts constituted desirable acoustics would be found to be accurately associated with a fixed period of reverberation for a given class of music; and in 1902 he commenced a series of experiments on this point. At the recently built New England Conservatory of Music was a number of small rooms with plain wooden furniture which were to be used for practising. Under Sabine's direction, a committee of musical experts listened to piano music in each room in turn, and in every case cushions were introduced until the critics expressed themselves satisfied with the acoustics. The times of reverberation were afterwards measured in the manner already described, and the results are set forth in the following table:—

Room Number.	Volume.	Absorbing Power of Room	Persons Present.	Absorbing Power of Clothing.	Meters of Cushions.	Absorbing Power of Cushions	Total Absorbing Power	Reverberation in Seconds.	Remarks on Reverberation.
1	74	5.0	0	0	00	0	5.0	2.43	Too great.
		"	5	2.4	00	7.4	1.64		
		"	"	"	13	12.8	20.2	0.60	Too little.
					11	10.1	17.5	0.70	Better.
2	91	6.3	0	0	8	7.3	14.7	0.83	
		"	6	2.9	6	5.5	12.9	0.95	Approved.
		"	"	"	4	3.6	11.0	1.22	Too great.
3	210	14.0	0	0	0	0	14.0	2.46	Too great.
		"	7	3.4	0	0	17.4	2.00	
		"	"	"	12	11.0	28.4	1.21	Better.
		"	"	"	15	13.7	31.1	1.10	Approved.
4	133	8.3	0	0	0	0	8.3	2.65	Too great.
		"	7	3.4	0	0	11.7	1.87	
		"	"	"	6	5.5	17.2	1.26	Better.
		"	"	"	10	9.1	20.8	1.09	Approved.
5	96	7.0	0	0	0	0	7.0	2.24	Too great.
		"	4	1.9	0	0	8.9	1.76	
		"	"	"	10	9.1	18.0	0.87	Too little.
		"	"	"	8	7.3	16.2	0.98	Better.
		"	"	"	5	4.6	13.5	1.16	Approved.

Extracting from this table the times of reverberation when the acoustics were declared satisfactory, we have:

Decay Period (seconds).					
Room 1	..	..	..	..	0.95
Room 2	..	..	..	..	1.10
Room 3	..	..	..	..	1.10
Room 4	..	..	..	..	1.09
Room 5	..	..	..	..	1.16
Mean	..	..	..	..	1.08

This result is most interesting, as we see that the maximum departure from the mean is 0.13 seconds and the average departure only 0.05 seconds. The greatest deviation occurs in the case of Room 1. In this room only was it suggested carrying the experiment further when an approved condition had been reached—*viz.*, by removing two more cushions. The reverberation period was then 1.22 seconds, and was declared unsatisfactory. Now, 1.22 seconds is further above the mean than 0.95 is below. Had one cushion been removed instead of two the result might have been closer to the mean value. In every case the chosen condition came nearer to the mean value than any other condition tried. Inspection of the large table shows that there was considerable diversity in the rooms as regards size, furnishing and the number of persons present. The numbers of cushions that had to be introduced to produce satisfaction were 6, 5, 15, 10, 5, so there could be no question of prejudice. In three cases the final condition was reached from overloading, in one from underloading. Also, before the experiments no explanations were given of the method to be pursued. This surprising accuracy of musical taste is probably the explanation of the rarity with which it is entirely satisfied, particularly when architectural designs are left to chance in this respect.

The particular results of these experiments, *viz.*, the approval of a reverberation period of 1.1 seconds, is of importance, as it may be taken as the standard value for desirable results in the case of chamber music.

Sabine next extended his experiments to sounds of varying pitch. To explain the necessity for this he cites the following example:—

"In an empty room with hard walls such as a church the reverberation for a violin (middle register) and a double bass viol are about the same. The introduction of cushions reduces the reverberation for both, but in different proportions, so that the reverberation for the double bass is now twice that for the violin. The presence of an audience increases the disproportion still further. Since a difference of 5 per cent. in reverberation is a matter for the approval or disapproval of musicians of critical taste, the importance of considering these points is obvious." A further point of which account must be taken is the composite character of a musical tone. As we have seen, the quality of a tone

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

depends on the relative intensities of the overtones present, and it has been customary for physicists to regard these relative intensities as dependent simply on the source of sound. Primarily, of course, this is true. But, while the source determines the relative intensities in the issuing sound, the intensities as heard depend not merely on that, but also to a surprising degree on the room itself. Thus, with an 8-foot organ pipe, used by Sabine, for which the overtones were pronounced in an empty room, the introduction of felt reduced the ratio of the first overtone to the fundamental by 40 per cent., that of the third overtone by 50 per cent., and that of the fourth by 60 per cent. With a 6-inch pipe, on the other hand, the effect was to accentuate the overtones ; whereas all notes below the 6-inch fundamental were purified. The effect of an audience was still different—*viz.*, to purify all notes up to C₄, 512, and to have very little effect on tones above this. For C₁, 64, the first overtone was decreased 65 per cent. relative to the fundamental, and the second 75 per cent.

The musical effect will thus be injured or improved according to circumstances. The mixture stop in an organ is designed to be rich in overtones, the night-horn stop to be specially pure ; and it may happen that the room in which they are sounded will completely alter the intended effects. To determine the balance must lie with musicians, and it is important that the judgment of musical authorities should be gathered in available form. So far as the writer knows, this has never been attempted.

The chief results obtained by extending the investigation to cover the whole musical scale are most conveniently summarised by the curves in Fig. 6. Here absorption coefficients—*i.e.*, square metres of complete absorption per square metre of the substance considered (or square feet per square foot)—are plotted against the pitch of the note used :—

Curve (1) is for a painted brick wall.

Curve (2) is for plaster on tile with a finishing coat.

Curve (3) is for wood panelling ($\frac{5}{8}$ -inch pine on studding at 14-inch centres).

Curve (4) is for Akoustolith tile, manufactured by the R. Guastavino Co., New York.

Curve (5) is for a special hair felt manufactured by the John Manville Co., New York.

Curve (6) is for hair cushions covered with canvas ticking and thin leatherette.

Curve (7) is for elastic cotton (cotton wool?) cushions covered with canvas ticking and short nap plush.

Curve (8) is for audience (per square metre or square foot, as ordinarily seated).

It will be noted that plaster walls absorb hardly any sound. Wood panelling is slightly more effective, but for high absorbing power it is necessary to use some specially prepared material, such as the felt or tile

specified. The former is a rather more efficient absorber, and is much cheaper. It has to be covered by some form of decorative tapestry. The tile, on the other hand, fits in better with most decorative schemes, as it can be supplied in any colour, and requires no covering. It does not collect dust to the same extent that the felt does, nor is it liable to take fire.

As reverberation is by far the most common defect in audience halls to-day, it may be interesting to discuss the case of a room which is typical of many. The library in the department of architecture at University College, though a fairly small room, is known to have poor acoustics. When a committee is held in it members seated at opposite ends of the table have difficulty in hearing one another. One's first impression on entering the room is that it is bare, and, therefore, that the defect is probably due to excessive reverberation. The time taken by the noise of clapping the hands to die out confirms this impression ; and on a rough test of this sort the reverberation period was guessed at something over two seconds. The acoustic analysis of the room gave the following results :—

Volume : 265 cubic metres.

PERMANENT FACTORS.

		Areas, Square Metres.	Coefficients.	Absorbing Power.
Plaster	..	175	0.025	4.4
Wood	..	62	0.06	3.7
Glass	..	22	0.027	0.6
Linoleum	..	50	0.12	6.0
Chairs (units)	..	18	0.016	0.3
Total	..	..	..	15.0

TEMPORARY FACTORS.

	Absorbing Power.	Totals.
6 persons (3 men and 3 women) isolated	3.1	18.1
18 persons (9 men and 9 women) isolated	9.1	24.1
50 persons seated as an audience	22.0	37.0

The corresponding times of reverberation are :—

	Seconds.
Empty room	2.9
Six persons present	2.4
Eighteen persons present	1.8
Fifty persons present	1.2

In a small room the reverberation should be reduced to one second or less if possible, so that at present it would hardly be satisfactory even with fifty persons present. The walls of this room are broken up by windows and bookcases, and the obvious places to put absorbing material are the ceiling and the floor. Felting the ceiling would be more difficult and less sightly than laying a carpet. It is worth while considering what difference would be made by removing the linoleum and replacing it by a fairly thick carpet laid on felt.

THE ACOUSTICS OF THE AUDITORIUM

The corresponding increase in absorbing power would be : $50 \times 0.38 = 19$ units, which gives as the new reverberation periods :—

	Seconds.
Empty room	1.3
Six persons present	1.2
Eighteen persons present	1.0

New York, to which calculation was applied in advance of construction. The purpose of this auditorium was the production of plays which could be adequately rendered only by the most delicate shades of expression, a purpose which made low reverberation over a fair range of the scale very desirable. The theatre was to



FIG. 8.—ST. PAUL'S CATHEDRAL, DETROIT

These values are not too low for speech in a small room. The laying of this carpet has not yet been carried out, but that it would have the desired effect there can be no question. Evidence for this conclusion must, however, be sought farther afield.

A suitable example is that of the Little Theatre in

seat only 300 people, and there was the important assurance that every seat would be occupied at every performance.

The first calculation, made from the initial pencil sketch, yielded curve (1) on Fig. 7. This would not have been in excess of the reverberation in many

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

theatres not specially bad, but here it was desired to have exceptional quality. Changes in shape were next made, which reduced the volume and yielded a condition represented by Curve (2). Acoustic felt was then applied in panels on the side and rear walls. The resulting reverberation is given by Curve (3).

As a second case of the application of the method to the reduction of reverberation we may take the case of the St. Paul's Cathedral in Detroit. In a room of the

this, felt, highly efficient acoustically, was placed in the panels on the ceiling, as shown in Fig. 8. Further improvement was made by extending the treatment partly down the walls. The original decorative design for the ceiling was carried out on the covering of the felt and the marked effect of the treatment of the reverberation is shown by the curves on Fig. 9. The dotted curves represent the conditions of the room for different sizes of audience before the treatment, the full curves

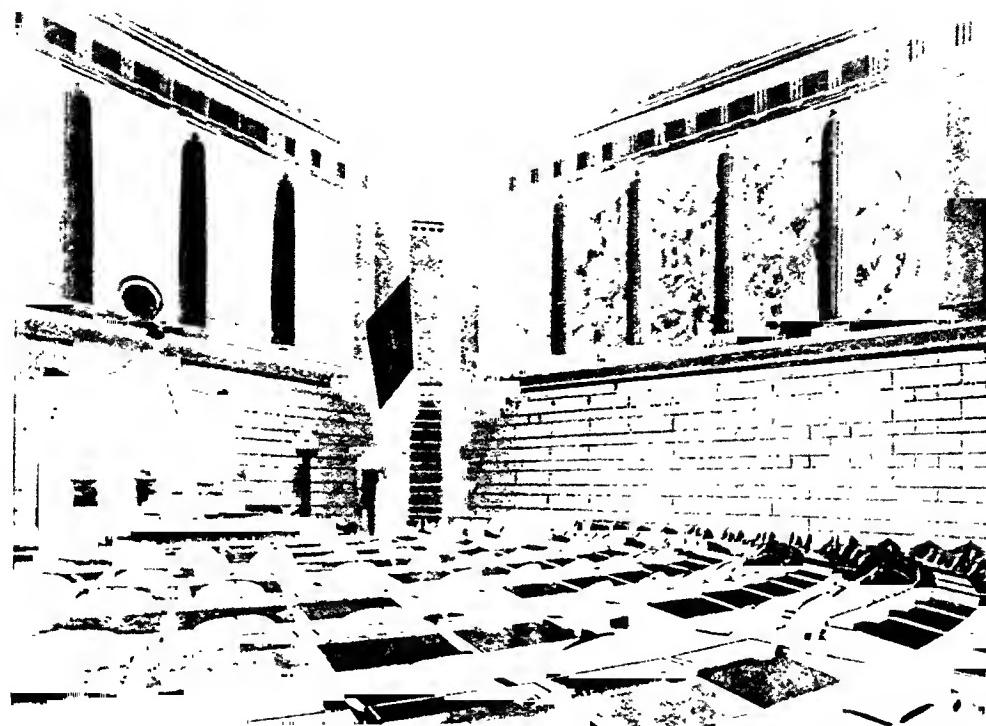


FIG. 10.—HOUSE OF REPRESENTATIVES, RHODE ISLAND STATE CAPITOL, PROVIDENCE, R.I.

conventional rectangular pattern it is easy to apply the reverberation formula, and it matters little as far as reverberation is concerned where the absorbing material is placed. There is, however, a strategy of the subject, and one case in which special consideration is necessary may occur in a cathedral, such as this, where the nave, moderately narrow in the clerestory, was broad below owing to its extension by side aisles. Simply to calculate the total volume in this case would not have given the correct impression. But the system might be regarded as two simply connected spaces, one broad and absorbent when a large audience was present, the other narrow and highly reverberent. To correct

(To be continued.)

the corresponding conditions after the treatment. Another case in which such treatment was successful, though undertaken only after the building was complete, is provided by the Hall of the House of Representatives in the Rhode Island State Capitol at Providence, which is illustrated in Fig. 10. Here the walls were of stone to about half the height of the room. Above that they were of plaster between stone pillars. The difficulty was reverberation, but, owing to the proportions of the room, reverberation of a special character. It was met by placing a suitable felt on the plaster walls between the columns and covering it with a decorated tapestry.

Grateful acknowledgments are due to the Harvard University Press for permission to use numerous diagrams from Sabine's "Collected Papers on Acoustics" (1922) and to Messrs. F. Vieweg & Son, Brunswick, for similar permission in the case of Michel's "Hörsamkeit grosser Räume" (1921).

The Gothenburg International Town Planning Exhibition and Conference

BY THE R.I.B.A. DELEGATE

The great exhibition at Gothenburg must be regarded as a notable achievement for a city of about 200,000 inhabitants ; and the Town Planning Exhibition, held in connection with it and with the Conference of the International Garden City and Town Planning Association, was no less a success. Of the exhibition generally, much has been written in the English Press by those who have doubtless devoted more time to seeing it than I was able to spare from the Town Planning section. But a word must be said as to its lay-out and its architecture. The promoters had the advantage of working in a city which has, since 1866, been developing under town planning control. For many years that control has been exercised under the guidance of Dr. Lilienberg, an engineer with much of the born architect in his make-up, well remembered for his personality, his paper and his exhibits, by those who attended the R.I.B.A. Conference and Exhibition in 1910.

It was very interesting, revisiting the city after a lapse of eleven years, to note the progress made ; past plans have been realised ; new garden suburbs, then only planned or started, now afford attractive homes for many colonies of people ; public buildings, then only located, now justify their careful placing by the extent to which they adorn the city or stand out as prominent landmarks from the sea.

Gothenburg is indeed a standing proof of the advantage of town planning and its effectiveness to avoid evils and to secure advantages, for it is a most convenient and attractive town. As a consequence of the care exercised in the past and the definite plans thought out for the future, the exhibition has been able to take its place as an incident in an orderly development. It has derived distinction from its incorporation in the city plan, and has materially assisted towards the realisation of many of the practical and cultural projects of that plan. The main entrance to the exhibition forms the termination of one of the chief radial avenues from the centre of Gothenburg, at the point where it strikes the steep hillside and must therefore terminate or diverge as a traffic way. The lay-out and permanent portions of the buildings will form the commencement of a square or *place* to be occupied by cultural and educational buildings required for the city. The site of the central group of the Exhibition is both steep and rocky. Great skill and taste have been shown by the architects in the combination of the different sections of the exhibition, with the opportunities of the site, to create dignified, or charm-

ingly intimate, groups of buildings of great architectural interest. Some of the buildings, it is true, display a degree of originality in form, proportion, and character, which one would be disposed to criticise in ordinary circumstances ; but such originality is confined to some of the temporary buildings, in which experiments may perhaps legitimately be made with less strict regard to traditional forms, and less restraint generally, than would be considered incumbent on the designer of any permanent structure. Be that as it may, much even of the temporary work is so delightful in its simple fitness and its adaptation to the site that one cannot but regret that it is not permanent. An old church and churchyard, erected as a setting for the exhibition of ancient Swedish ecclesiastical and memorial arts, is a gem of a kind not easily to be matched in the memories of exhibition features.

Those responsible for the Town Planning Exhibition are to be congratulated on having assembled perhaps the most important and interesting collection of plans and models which has been seen since the three great exhibitions held in 1910 in Berlin, Dusseldorf, and in London, the latter arranged by the R.I.B.A.

The collection from the various Scandinavian countries, as was only natural on this occasion, was the most complete, and conveyed to the visitor from more distant lands the freshest impressions. It was indeed encouraging to Town Planners to see how these countries are working at the problems of the growing city, and each making some individual contribution of value towards their solution. It was particularly encouraging to architects to see how fully the proper function of design in town planning is realised in most of the work.

The beautiful models of Gothenburg, one showing the past achievement, another the future projects of harbour extension and town development, were naturally among the most prominent features. Fine models also illustrated the projects for Helsingfors, the work of Arenberg and Poulsen for Christiania, including some very beautiful architectural groupings of public and of domestic buildings, and the interesting and suggestive work of Sverre Pedersen at Trondhjem and other places. These and many other exhibits show, in addition to sound town planning work, an imaginative and architectural treatment of lay-out and buildings of a very high order.

The German section included much of new interest, even to those familiar with their work. Particular mention may be made of the proposals for Berlin to

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

meet the changed conditions and the new laws limiting the height and density of buildings outside the line of the ringbahn ; the plans and photographs of a number of eighteenth-century industrial satellite towns and villages which were planned and developed around Berlin, and still retain their original character ; and the regional survey and planning of the great Ruhr industrial area. The latter scheme afforded a notable illustration of the power for organisation on a large scale to promote the common good of their citizens which the German municipal authorities have developed. No Town Planner can look at this most highly civilised regional survey and planning without a sense of dismay at the very uncivilised struggle which is at present devastating that same area.

The American section illustrated quite a new range of problems, partly connected with the extensive use of the motor car in towns which have adopted high buildings ; and the survey studies dealing with New York problems were particularly interesting ; there were also examples of their widespread zoning activities. Reconstruction work was illustrated by plans from France, Belgium and East Prussia. England was represented by examples of the Garden City and Housing movements, the surveys and projects of the Regional Committees, and of the practical type of municipal town planning, which is the method adopted by our country for securing the main communal requirements of future city development, while leaving the maximum liberty to the individual developer. Compared with much of the work from other countries where the plans are prepared in greater detail, English municipal town plans are certainly lacking in architectural finish and treatment ; perhaps it may be claimed that they secure some advantage on the side of practical utility, and leave more scope to the developing owner. It is not easy, however, for an architect to be content with such an explanation ; for he feels that it is an excuse rather than a sufficient reason ; and that even the main framework of the scheme must be architecturally conceived, if the site planner is to have a fair chance. It is greatly to be hoped that exhibitions like that at Gothenburg, which show in the work from so many other countries a greater appreciation of the function of design in town planning, will gradually arouse in the municipal authorities and the public of this country a sense of dissatisfaction with their rather prosaic development schemes. However practical they may be, some of these schemes give little indication of imaginative treatment of the sites, and provide few opportunities for fine architectural groupings, characteristics which were common in the projects from Norway, Sweden, Finland, and many other countries.

A number of interesting Papers were read and considered at the Conference ; but one of the most instructive features was provided by the informal discussions

which took place in the exhibition. International groups of town planners, architects and others, from about 20 different countries, gathered round the chief exhibits ; having first secured an explanation from the author of the work or one of his nationals, they discussed the projects and compared the methods and style adopted, with those shown in the exhibits from other nations. These discussions were contributed to by veteran town planners like Dr. Stübben, who in spite of his 78 years is as keen as ever, and anxious to find new methods to meet the changed circumstances of the towns of his country, men actively engaged in modern town planning, like John Nolen from America ; and students like Charles Eliot, of Harvard, who brought with an honoured name fresh enthusiasm and the latest ideas from the New Country.

Perhaps the main feature which emerged from the Conference was the extent to which the members of the International Garden City movement found themselves occupying common ground with the representatives of the more official town planning activities of most countries ; typified by the meeting of Ebenezer Howard and Dr. Stübben on a common platform ! It seems clear that the time is fast coming, if not already arrived, at least so far as international gatherings are concerned, when the distinction between the propagandist garden city and the practising town planning movements will no longer be required.

It was a fortunate circumstance that Dr. Hegemann, with his encyclopædic knowledge of town planning work, and his experience of former exhibitions, enriched by some years of life in America, was available to contribute to the informal discussions, and to produce the catalogue. All who are interested in the question and were unable to visit the exhibition will find there much of value. It can be obtained from Dr. Lilienberg, Gothenburg, Sweden, price 8s.

R. U.

THE PRINT SOCIETY.

The second publication of the Print Society, edited by Mr. E. Hesketh Hubbard, the founder of the Society, with an Introduction by E. Kineton Parkes, contains sixty-six full-page reproductions of etchings, dry points, aquatints, and mezzotints, as well as a few reproductions of wood blocks and lithographs. The members of the Society are to be congratulated upon the production of so much admirable work. "The Trawler," by Edward W. Charlton, "The Dying Tramp," by Percy Smith, and "The Little Vourstraats-havn," by Hugh Paton, are among the many admirable examples of the etcher's art included in the volume. Architecture forms the subject of many of the prints, including "L'Eglise Notre Dame, Caudebec en Caux," by Caroline Armington, "A Street in Paris," by E. Marsden Wilson, "Trinity College, Cambridge," by H. Sheppard Dale, which are among the best. Mr. Parkes' Introduction contains some useful suggestions with regard to the preservation, mounting and framing of prints.

Reviews

LONDON OF THE FUTURE: A CITY OF PLEASANT PLACES AND NO EVIL SLUMS.

By Thomas Edward Collcutt, P.P.R.I.B.A., Royal Gold Medallist (Architecture). Published by Leonard Parsons, Devonshire Street, London, W.C. Price 2s. 6d. net.

A city of pleasant places and no slums ! If we are to enable others to travel hopefully towards this goal we must have intelligent vision ; to this must be added knowledge born of experience, and to this, sympathy. In respect of all these qualities Mr. Collcutt is well equipped for the task, and his book deserves to be thoughtfully and widely read. The King's message at the opening of Parliament four years ago supplies the text : "A great offensive must be undertaken," said His Majesty, "against disease and crime, and the first point against which the attack must be delivered is the unhealthy, ugly, overcrowded house in the mean street, which we all of us know too well." Statesmen and Churchmen were ready to join forces in making this great offensive, but, after almost five years of peace, what has been done ?

Mr. Collcutt points out that all the schemes which have been put forward towards a solution of the housing problem have been considered from one point of view, that is, the necessity of forming new areas of population to an already overgrown town. They have assumed that the house accommodation must be outwards. The scheme herein presented proposes that the expansion should be upwards. There is much in favour of this argument. The Londoner of the mean street must live near his work. Put him outside London, and his daily scramble for standing room in tram or bus, to and from his home, adds immensely to his discomfort and expense. Moreover, he is fond of London.

The scheme for the building of "pleasant places" begins with the construction of a South Embankment. At present London proper hardly extends across the river : there is an enormous difference between the land values on the north and the south sides. The part of Lambeth facing the river, extending from the London County Hall to Waterloo Bridge, and as far back as York Road, is occupied chiefly by wharves and warehouses, with a certain number of mean streets. To provide accommodation for the dwellers of other slum areas, this site should be cleared, and upon it could be built well-arranged systems of flats for the families of manual and other workers—eight- or ten-storey flats, furnished with passenger lifts, central heating, and domestic hot-water circulation. The children could have playing grounds on the roofs, with emergency gates between one roof and another. York Road would provide the opportunity of good shop frontage, with residential flats at higher rentals above.

For the methods by which such a scheme could be successfully accomplished the reader must be referred to the book. Mr. Collcutt believes that his plan would form the kernel of a sound undertaking, giving a good return in dividends upon the initial outlay.

Another chapter in the book deals with the suggestion of the removal of Charing Cross Station from its present site to a position on the opposite side of the river, and connecting the two sites by a structure on the principle of some of the mediaeval bridges. Instead of the ordinary bridge, exposing the pedestrian to the weather, the structure across the river would form a street, with covered colonnades, shop frontages on either side, and two storeys of residential flats over. The scheme has great possibilities, and there is much in it that is attractive. It can be carried out, Mr. Collcutt believes, with great advantage to the whole community if the "powers that be" will use that corporate common sense with which God, sometimes, endows them.

P. LESLIE WATERHOUSE [F.]

SIR CHRISTOPHER WREN. *Scientist, Scholar and Architect.* By Sir Lawrence Weaver, K.B.F., F.S.A., Hon. A.R.I.B.A. [London : Published at the offices of Country Life, Ltd.]

This is a little book written largely ; on that count it ranks not the least among the tributes paid to the memory of a man who was sufficient for his time and posterity. In his preface Sir Lawrence Weaver hints at the magnitude of the task awaiting the future editor of a definitive "Life and Works," for such a book will indubitably have to be written ; the hint, if one may be permitted to say so, carries with it the desire for time and opportunity to produce the work, and there is none better fitted than Sir Lawrence to comprehend the minutiae of the buildings and career of the greatest English architect.

Sir Lawrence Weaver's account of Wren is authentic. Although the scope of the little book precludes an exhaustive study of the personality of the architect, the author describes parentage and childhood, Wren's contemporaries, his gifts as a scientist, his travels in France. One illustration shows him as a man of forty : it is a picture both engaging and youthful looking, yet at this age the cares of his professional career must have been heavy. Another illustration is the "Welbeck Portrait," and yet another the Wadham portrait copied by John Smith of Oxford in 1825. Following are the portraits by Kneller and Elisha Kirkall, revealing the facial aspect of the architect at maturity. In addition, there are a series of excellent line drawings by E. H. New, mainly dealing with the towers of the City churches.

In this work the author has wisely followed the course of presenting a new view of the great architect's career in a series of sketches happily arranged which go far to bring into relief the talents and labours, no less than the successes, of an English gentleman.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

That Wren towers above the society of his time is common knowledge; his personality broods over London, his spirit frequents the panelled rooms of Windsor and Hampton Court; one is conscious of his presence in the University cities; no cloaking, masking, nor donning of full-bottomed wigs can bring back the spirit of his age or the character of his works. Wren was not an actor, neither did he develop into a copyist; by natural endowment he was from first to last an inventor, and one gifted supremely with courage and audacity. Since his time building has advanced as a natural corollary to his labours; architects have traversed the gamut of classicality, they have resuscitated styles long since dead, they have sought for inspiration amidst the debris and rubbish heaps of craftsmanship long forgotten. These revivals and resuscitations have all been to the good, for there has resulted a clearer understanding of essentials relieved of the shibboleths and cant cries of prejudice and fashion. From the technical standpoint, let it be understood, the word practical is abhorrent; things have improved; planning is beginning to be fathomed—that is to say, planning unfettered by rigid observance of rules of style; rather the tendency to-day is directed to laws geometrical. Close study of tradition has at least altered the public viewpoint, especially in the region of domestic architecture. What is now required is that the young architect should, in addition to his appreciation of the subtle qualities and exactions of what may be termed historical building, acquire that detached and disinterested appreciation of form without which visionary ideas, however intriguing the latter may be, cannot be carried to a logical sequence. The moral to be gained from a study of the works of Sir Christopher Wren embraces thought altogether outside the scope of ordinary divisions. It is concerned essentially with imagination, with ideas; it has its centre, moreover, in the needs of the moment, for tradition is a bad master and welds fetters not easily thrown off. The study of a great artist, as of a coterie or of an historical period, proves that tradition in the past resulted from definite change with the sequence that preceded it. But such study does not prevent an assimilation of the supreme qualities which alone are indestructible and everlasting.

A. E. RICHARDSON [F.]

Correspondence

THE PRESERVATION OF CARVINGS AND MOULDINGS IN ANCIENT BUILDINGS.

To the Editor, JOURNAL R.I.B.A.—

Heriot-Watt College,
Edinburgh

DEAR SIR,—In the lecture to Academy students last year on "Stone Preservation" I gave some

account of the new stone preservative silicon ester, and it may interest your readers to know something of its method of application as derived from my own experience on decayed surfaces which represent the conditions to be found on priceless carvings and mouldings.

The special problem in which I am interested is the preservation of carvings and mouldings in ancient buildings. In many cases these mouldings, while preserving something of their original outward form, are so decayed and the stone is so rotten that the application of a brush means their destruction, and it is necessary to search for something which, while it can be applied as a thin and penetrating liquid, will as it dries act as a cement, rebinding the particles of the stone together. It is also evident that such a cement must of itself be practically indestructible. It was for these reasons that I finally adopted silicon ester for trial, as on exposure to moist air it deposits a cement of hydrated silica round the particles which is practically chemically indestructible.

The following is some account of how this liquid is to be used in practice.

It should be splashed or painted freely on with a soft flat brush, and as each application soaks in another application made.

It is impossible to lay down any rule as to the number of applications necessary, the stone absorbing from four to ten or fifteen coats according to its nature and condition of decay. The stone is not discoloured, but the final application when the stone is saturated dries with a slight gloss. This is not visible at a distance but for stone surfaces close to the eye it may be objected to and care must then be taken to make a sufficient number of applications to harden and bind the stone without going so far as to obtain a glossy surface. This is soon found by experience.

Often, in one moulding, one portion is badly decayed and very absorbent while another portion is only slightly absorbent, certain limestones for instance, decaying in this way and having a hard skin in places. The excess of liquid should be wiped off these portions with a sponge moistened with methylated spirits, or holding a sponge pressed to the stone below the especially rotten surface, repeated applications with a small brush can be made to the rotten surface itself.

Light coloured stones are not discoloured, but a limestone covered with the white flour of decay will necessarily look darker, and a dark coloured stone like a red sandstone will have a grey appearance if too much of the solution is applied; and it is necessary therefore in such cases to be very careful not to apply too much. In the case of such stones it is a good plan after the final application has soaked in, but before it has set, to wipe over the surface

CORRESPONDENCE

with the sponge dipped in methylated spirits. Of course the drier the stone the better the liquid is absorbed.

No brushing down should be done before application except in very special cases where, as in certain limestones, the whole surface is covered with a swollen and loosely adhering scaly surface which falls at the slightest touch. No preservative can penetrate this, and it may be lightly brushed off with a soft brush, but only by an expert who thoroughly understands the artistic value of the surface. No workman should be allowed to touch it.

After the surface has been saturated and hardened we have in many cases the problem of cracks and fissures, and portions which are deeply undercut by decay and ready to be detached. It is evident that if these conditions are left the mere hardening and re-cementing of the surface will be of little use.

I have therefore a suggestion to make which I put forward with all diffidence, as it may be objected to by some architects.

If some of the same stone is crushed to powder and mixed with a strong solution of the silicon ester, it can be used as a cement to fill up cracks and to pack in behind hanging and undercut portions. I have found this can be done, and the resulting surface being made of the stone itself may be trusted to weather to the same colour, though when first applied the freshly crushed stone may have a crude appearance. I leave this suggestion for the consideration of architects and others interested.

Fine old but decayed surfaces of brick work can be treated in the same way. After two or three applications over the whole surface, bricks which are in a very decayed condition can then be treated with repeated applications, a sponge being held against the brick below and a small brush being used. If the treatment is not carried too far the bricks are not altered in appearance. Over treatment will result in a grey appearance. Powdered brick and a strong solution can be used for filling up cracks.

After the bricks are hardened, it is possible to re-point but it must of course be very skilfully and carefully done.

No doubt this solution if it continues to prove its value as tested by time will have useful applications as a preservative agent on ordinary stone surfaces, and would be applied by spraying. The above instructions are intended for those who, having ancient buildings in their charge, should treat the carvings and mouldings with the minute and painstaking care which should be applied to the cleaning of a picture by Rembrandt.

I am, yours, etc., .
A. P. LAURIE.

HOUSING THE PEOPLE.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—In *The Times* of 8 August appears an article, by its Rome correspondent, on Housing in Italy. It explains the Italian post-war system of obtaining small houses in quantity, which is summed up as follows :—

Success in Italy has been achieved by the grant of a substantial annual subsidy in the form of (a) remission of taxation ; (b) by the financing of building societies at a low rate of interest—2 to 3 per cent. ; (c) by a resolute policy, at whatever cost in popularity, of throwing the arrangement of the relationship between landlord and tenant upon the first parties themselves.

As compared with our own expensive complications and uncertainties this system appears to be a simple and common-sense one.

Our pre-war system of house building was one of private enterprise financed on easy terms, backed by the building societies with their loans for house purchase. It was our people's own way of getting their homes.

At the present time of uncertainty as to future building costs, the building societies cannot lend on mortgage to a purchaser a sufficient percentage of the purchase price, and as a consequence the builder must be content to leave a considerable sum sunk in each house he builds and sells as a second mortgage ; he cannot continue to do so indefinitely.

Under a system of Government guarantees the building societies would be prepared to lend almost the full purchase price, or an amount which together with the purchaser's available cash would pay for the house.

To subsidise builders with cash sums has the effect of raising the price of materials, but not of wages ; this has been proved quite recently, and it looks as though it were now in process of being proved again under the new Act.

There is, however, in this Act one hopeful sign. Section 5 (1) (b) empowers a local authority to guarantee to a building society the repayment of an advance made to any of its members desiring to build or acquire a house having an estimated value of not more than £1,500.

This clause looks something like the nucleus of a system of guaranteed house purchase which would not raise prices artificially, would not enforce the acceptance of ninepence for fourpence on people who prefer to be independent of such gifts, and which would begin to provide the required homes in adequate quantity. In fact, it is the only system which can be permanently successful.

The Italian system might be adapted to our own housing problem without difficulty, and I am convinced

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

with economy and with as much success as has been the case in Italy.

It is indeed certain that no efforts of Government can be successful unless based on the old and well tried method of house building that existed for so long in this country before 1914.

As to the part which qualified architects might play in such a scheme, it will be recognised that a new generation of house builders is getting to work, and that the Royal Institute of British Architects has already agreed with them upon a scale of fees to be charged by its members for this kind of work.—Yours faithfully,

ARTHUR WELFORD [A.]

51 Years' Architectural Journalism

RETIREMENT OF MR. MAURICE B. ADAMS [F.]

Mr. Maurice B. Adams, who is retiring from his position of Architectural Editor of the *Building News* on the 29th inst., was elected an Associate in 1876 and a Fellow ten years later. He is a familiar personage at the Institute meetings, where he has so often contributed to the discussions. The *Building News* was founded in 1856, and is therefore, next to *The Builder* (founded in 1842), the oldest established existing architectural journal. Mr. Adams's long and honourable association with that paper, as well as his helpful activities in other directions and his works as an architect, were summarised in *The Times* of 15 September as follows:—

"Mr. Maurice B. Adams, F.R.I.B.A., the Architectural Editor of the *Building News*, is to retire at Michaelmas after fifty-one years' continuous service. No other architect has been engaged in the conduct of a professional journal for so long a time, the tenure of the editorship of *The Builder* for forty years by Mr. George Godwin, F.R.I.B.A., being the sole instance of a similar kind. The 'Building News' Designing Club was personally conducted by Mr. Adams for thirty-seven years, and several of those who were members of it during that period have since become well-known architects either at home or in the Colonies.

"For a quarter of a century Mr. Adams was also hon. secretary of the Royal Architectural Museum and Art School in Tufton Street, and the scheme for presenting the museum and its remarkable collection to the Architectural Association was originated and carried through at his suggestion. The acquisition of this property by the Association subsequently enabled that society to secure its present quarters in Bedford Square when the museum trustees confirmed the transfer of the casts and examples to the Victoria and Albert Museum, South Kensington. Mr. Adams at one time served as one of the judges of the works submitted in the National Competitions for medals and prizes. He designed the Lord Leighton Memorial Art School and Polytechnic at Camberwell and a number of libraries and institutions for Mr. Passmore Edwards, including the School of Economics, which the latter presented to the University of London, and the design for which was selected in competition. Blickling Hall, Norfolk, was altered and restored by Mr. Adams for Con-

stance Lady Lothian. He was, too, connected with Bedford Park at its start in 1878, and built the School of Art, Memorial Chapel of All Souls, and the Parish Hall. He also completed the church.

"*Artists' Homes and Modern Cottages* are the titles of two of Mr. Maurice Adams's books. He was associated with Mr. R. Norman Shaw, R.A., and with Mr. E. W. Godwin, F.S.A., also with Colonel Edis [F.], in others."

Obituary

CHARLES STEWARD SMITH [F.]

Born in 1858, Mr. Charles Steward Smith was the eldest son of the late Mr. Charles Smith, J.P., F.R.I.B.A., a well-known Reading architect. He was educated at Reading School, and was subsequently articled to his father. On becoming qualified to practise he went to London, where he spent some years with different firms to gain professional experience. He then rejoined his father and was afterwards associated in business with him and Mr. Harry Hutt, A.R.I.B.A. On the death of his father he and Mr. Hutt continued in partnership. Mr. Smith became an Associate of the Royal Institute of British Architects in 1882, when he was awarded the "Ernest Turner" prize for sanitary science. In 1892 he was made a Fellow of the Institute. He was the first President of the Reading Society of Architects and was a member of the Council and first Vice-President of the Berks, Bucks and Oxon Architectural Association.

Amongst the many public buildings carried out whilst Mr. Smith was associated with the firm are extensions to the Royal Berkshire Hospital—including the new nurses' quarters, the contract for which has just been let—the Borough of Reading Isolation Hospital and Education Offices, the University College Buildings—including the gymnasium, the science and technical laboratories—and the Palmer Memorial Library, Wantage Hall, St. Patrick's Hall, St. Andrew's Hall, the Princess Mary Hostel of the G.F.S. in London Street, the Wilson Schools, Leighton Park School Swimming Baths, the Henley War Memorial Hospital, and the Science Laboratories, Bradfield College.

AUGUSTUS W. TANNER [A.]

We regret to record the death of Mr. Augustus W. Tanner, which occurred on 4 August last. Mr. Tanner, at the time of his decease, had reached the age of 80, and had only retired from active professional work two years ago. He was the oldest Associate on the R.I.B.A. register, having been elected in 1870, his serial number being 72. After serving his articles with Mr. Giles, of Craven Street, Strand, he entered the offices of the late George Edmund Street, R.A., and acted as one of his principal assistants during the erection of the Law Courts. He afterwards entered into partnership with Mr. Romaine-Walker, and, under the name of Romaine-Walker and Tanner, carried on private practice until 1896. In 1883 he was appointed District Surveyor for Hatcham, under the Metropolitan Board of Works, and in 1896 for Rotherhithe, part of Camberwell, Hatcham, and St. George's-in-the-East, under the L.C.C., when the acceptance of this office rendered it necessary for him

COMPETITIONS

to dissolve partnership with Mr. Romaine-Walker. He was again re-appointed by the L.C.C. for the District of St. George's-in-the-East in 1907, and retained that position until his retirement in 1921. Having acted as District Surveyor for about 38 years, he naturally had a wide knowledge of the old Building Act and its many amendments. He had a keen sense of justice and, in his official capacity, held an equal balance between the letter and spirit of the law. A picturesque personality, quick to anger and equally quick to forgive, an indefatigable worker, and a really good fellow has gone to his well-earned rest.

R. STEPHEN AYLING [F.]

JAMES A. M. BAXTER [A.]

Mr. James A. M. Baxter [A.], Edinburgh, died on 21 August at the age of 43. He was Lecturer on Fire-Proof Construction and Plan-drawing at the Heriot-Watt College (the Technical School of Edinburgh) and chief assistant in the honours and advanced class of Building Construction in the same place, and was head draughtsman with Mr. F. W. Deas [F.], in whose office he had been for 24 years. Modest and unassuming, his grasp of practical building construction was equalled by his technical knowledge in almost every trade connected with it and by his admirable draughtsmanship. He was an enthusiast in his work with the enthusiast's enquiring mind and untiring energy. The testimonies of affection that have come from those who worked under him, or were in any way associated with him, show how deep and widespread his influence was.

F. W. DEAS [F.]

BOARD OF ARCHITECTURAL EDUCATION. EXHIBITION OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. FINAL EXAMINATION.

The designs submitted by Students exempted from the Final Examination (with the exception of the subject of Professional Practice) are on exhibition up to Wednesday, 26 September 1923, inclusive, in the University of London Bartlett School of Architecture, Gower Street, by permission of the University College Committee. The exhibition will be open daily between the hours of 10 a.m. and 5 p.m., Saturdays 10 a.m. and 1 p.m.

The R.I.B.A. Board of Architectural Education Silver Medal for the Recognised Schools is awarded for the best set of designs submitted at this exhibition.

This year the following schools which have courses of five or more years' duration recognised by the Royal Institute for the purpose of exemption from the Final Examination have sent exhibits:—

The Architectural Association,
Liverpool University School of Architecture,
Glasgow School of Architecture,
Robert Gordon Technical College, Aberdeen.

The exhibition of designs submitted by Students exempted from the Intermediate Examination is being held by permission of the Council of the Architectural Association in the Studios of the Architectural Association, 34-36, Bedford Square, W.C.

ELECTION OF MEMBERS, 3 DECEMBER 1923.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the Election to take place on 3 December they should send the necessary nomination forms, etc., to the Secretary R.I.B.A., 9 Conduit Street, W.1, not later than 29 September 1923.

Examinations

R.I.B.A. PROBLEMS IN DESIGN.

SUBJECT LXXI.

(b) Working Drawings of Design Subject No. LXIX. (A School Library.)

Attention is drawn to the fact that, owing to a printer's error, the requirements for the drawings as set forth are incorrect.

The requirements should read as follows:—

"The design for a school library may, after it has been approved, be re-submitted with the addition of one $\frac{1}{2}$ inch scale elevation and two $\frac{1}{2}$ inch scale sections finished as working drawings. The section to show the bookcase fittings."

Competitions

TAUNTON SCHOOL WAR MEMORIAL.

The Council of the Taunton School invite designs for a War Memorial, consisting of an Art and Science Block, the cost of the building to be approximately £10,000, and they have appointed as Assessor Mr. Robert Atkinson, F.R.I.B.A., who will have the power to nominate a second Assessor if desirable. The premiums offered are one of £100 and a second of £50, the first premium to merge in the architect's commission.

Particulars, together with photograph of the present buildings, may be obtained from the Secretary of the School, Mr. H. J. Pollard, F.C.A., 3 Hammet Street, Taunton, in return for a cheque for £2 2s., which will be returned on receipt of a bona fide design.

SOUTHSEA COMMON LAY-OUT AND DEVELOPMENT COMPETITION.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

IAN MACALISTER,
Secretary.

CHISWICK RIVER EMBANKMENT AND PROMENADE COMPETITION.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

COMPETITION FOR A NEW ASSEMBLY HALL AND EXTENSION OF EXISTING COUNCIL BUILDINGS, EASTLEIGH.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition.

BOURNEMOUTH PAVILION COMPETITION.

The Assessor, Sir Edwin Cooper [F.] has now made his Award as follows :—

First : Mr. G. WYVILLE HOME [A.], and Mr. SHIRLEY KNIGHT, A.R.I.B.A., of Lincoln Chambers, Portsmouth Street, Lincoln's Inn Fields.

Second : Mr. H. V. ASHLEY [F.], and Mr. WINTON NEWMAN, F.R.I.B.A., of 14, Gray's Inn Square, London, W.C.

Third : Messrs. COLLCUTT and HAMP and Mr. J. F. WATKINS, Associated Architects, of 20, Red Lion Square, London, W.C.1.

SINGAPORE SOCIETY OF ARCHITECTS. ALLIED TO THE R.I.B.A.

The following letter has been received by the President from this newly allied Society to the Institute from Mr. S. Douglas Meadows, its President :—

"Dear Mr. President,—I am taking this opportunity of sending the greetings of the newly formed Singapore Society of Architects, which I fondly hope will become the youngest but nevertheless vigorous child of the mother body. There is a great work before us here and, given enthusiasm and proper organisation, the Society should do much to maintain the high standards of architectural work which have even now been established in the Colony. I hope ere long to be able to announce to the members here that the Institute has received this, her new offspring, under her protection."

Members' Column

MR. H. C. HUGHES.

MR. H. C. HUGHES, M.A. (Cantab.) (A.), while retaining his position as Librarian at the Cambridge University School of Architecture, has opened an office for his private work at No. 30, Sidney Street, Cambridge. Telephone : Cambridge 184.

T. BRAMMALL DANIEL & H. W. PARACOTT

THE above partnership is being dissolved, by mutual consent of the partners, as from the 29th September 1923. On and after the 30th September next, Mr. T. Brammall Daniel will continue to practise at Members' Mansions, 36, Victoria Street, Westminster, S.W.1; the firm name being T. Brammall Daniel, F.R.I.B.A., Architect. (Telephone—Victoria 5797.)

NOTICE.

Widow of F.R.I.B.A. and a Title Prizeman would be glad to share her house or let room to an Architect or would let the whole house in Bedford Park, furnished.—Apply Box 2023, c/o Secretary, R.I.B.A., 9, Conduit Street W.

OFFICE TO LET.

GRAY'S INN SQUARE.—Well-lighted room; part use of second room. Rent £72.—Apply Box 1293, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

ROOMS TO LET.

Two good rooms in West Central district are being vacated by a Member. One free at Michaelmas and the other at Christmas. Rent £60 and £90 respectively, inclusive of heating, lighting, and service.—Apply Box 1993, c/o The Secretary, R.I.B.A., 9, Conduit Street, W.1.

PARTNERSHIPS WANTED

ASSOCIATE would be glad to meet another Member with a view to partnership in starting practice (W.C. district). One who is able to introduce part work preferred. Full particulars exchanged. Apply Box 1493, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ARCHITECT and Surveyor, Licentiate, P.A.S.I., is desirous of entering into a Partnership or appointment view to same. Preferably South of England. All-round experience, and 15 years in practice.—Address W. A., c/o Barclays Bank, Osborne Road, Southsea.

CHANGES OF ADDRESS.

PROFESSOR BERESFORD PITE's offices and telephone number are now changed from The Royal College of Art, South Kensington, to 10 Great Russell Street, London, W.C.1. Telephone : Museum 2481.

AFTER 30 September, Mr. W. R. Davidge's address will be 5 Victoria Street, Westminster. Telephone No. : Victoria 8454. MR. C. E. HANSCOMB (A.) has changed his address to Station Approach, Sandinstead, Surrey. Telephone : Purley 1151.

APPOINTMENTS WANTED.

ARCHITECT, F.R.I.B.A., with 25 years' London practice in Architecture and wide varied experiences, seeks leading position in busy practice with view to future partnership, where his experience, practical and artistic qualifications, business connections and influence, also present architectural appointments and future works in view to be amalgamated and utilised to the fullest. Absolutely sound proposal to amalgamate and utilise energetic abilities. Box 3083, c/o Secretary, R.I.B.A., 9, Conduit Street, W.1.

REQUIRED by Licentiate, engagement in London district. Domestic work a speciality. Recently practising in town and could introduce work. Moderate salary. Would manage architectural department for an Estate Agent. Box 2883, c/o Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

ARCHITECTURAL ASSISTANT, crippled in War, desires professional work at home. Neat and correct draughtsman. Wide experience. References. Reply, Box 7923, c/o Secretary R.I.B.A. 9 Conduit Street, W.

ASSOCIATE, 28, married, ex-Service, would like to hear from Architect abroad requiring assistance with his practice. Energetic, sound general knowledge, and could take entire charge of works. Some Colonial experience—Apply Box No. 2,873, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

ASSOCIATE (38) wishes Appointment. Thoroughly capable and experienced all-round man (twenty years London and Far East). Ex-officer. Now disengaged. Would be pleased to assist Architects temporarily.—Apply Box 1863, c/o The Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

ASSISTANT WANTED.

WANTED IMMEDIATELY, a thoroughly competent Assistant (London trained preferred), for a period of six to twelve months, for Elementary and Secondary School designs and details. None but first-class men should apply. Salary at the rate of £450 to £500 per annum according to ability. Applications to be sent in not later than Saturday, 29th September, 1923.—W. Vincent Morgan, A.R.I.B.A., County Architect, Carmarthen.

LONDON ADDRESS REQUIRED.

ARCHITECT, with practice in Surrey, requires London address. Assistance or mutual arrangement if required, or would take over practice—Box 4923, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

MR. GERALD R. CLAYTON.

MR. GERALD R. CLAYTON, A.R.I.B.A., recently commenced practice at 5, Higher Church Street, Blackburn, and will be pleased to receive trade catalogues.

R.I.B.A. JOURNAL.

Dates of Publication.—1922: 11th, 25th November; 9th, 23rd December. 1923: 13th, 27th January; 10th, 24th February; 10th, 24th March; 14th, 28th April; 12th May; 2nd, 16th, 30th June; 14th July; 18th August; 22nd September; 20th October.

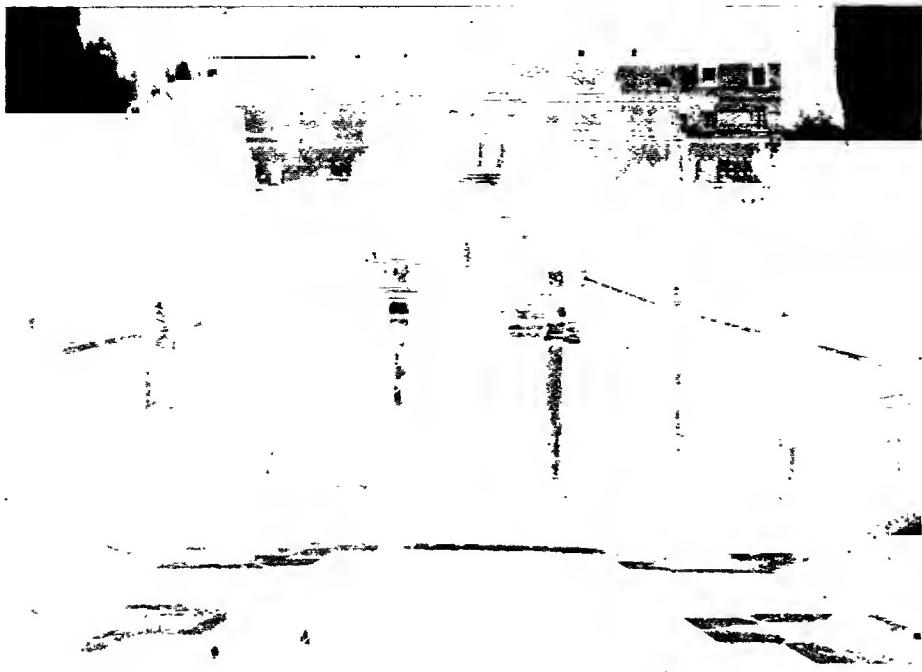


FIG. I.—THE VILLA D'ESTE, TIVOLI. GENERAL VIEW

Pirro Ligorio of Naples, Rome and Ferrara

BY C. A. HARDING [A.]

PIRRO LIGORIO came to Rome from Naples when about twenty years of age. His early years are curiously obscure and the meagre facts are contradictory. There are many brief notices of him in biographical dictionaries, but they give various dates beginning with 1490 as the year of his birth, while Lanciani places the event as late as 1527. As there is evidence in Ligorio's writings that he was in Rome between the end of 1540 and 1541, it would seem that about 1520 would be more correct. He came of noble family,* and his early studies were directed to literature, but a gift for drawing led him to seek his fortune as a painter, and in many of his writings he styles himself "Pittore Napolitano." On his arrival in Rome he seems to have supported himself by painting for some years, and in 1542 it is recorded that he painted some frescoes in the Roman Palazzo of Francisco della Rovere, Archbishop of Benevento.

Of his masters in Rome we know little. Bryant, in his *Dictionary of Painters*, says that Ligorio was a pupil of Giulio Romano, but, as Giulio left Rome in 1520-21 to

spend his life in the service of the Ducal House of Mantua, this cannot be correct.

Inigo Triggs, in *The Art of Garden Design in Italy*,† refers to Ligorio as a pupil of Vignola, a not improbable suggestion as Vignola returned from France in 1545, and in the following year, under the general direction of Michaelangelo, commenced work upon the courtyard of the Farnese Palace. Ligorio may have received part of his training under Vignola, for among the drawings in the Bodleian Library‡ there is a careful rendering in brown ink of this courtyard, as executed, with the carving alone omitted, and this may be a study of his master's work. Moreover, as will be seen later, Ligorio worked in close association with Vignola for many years on St. Peter's.

Ligorio gained some reputation as an artist, and traces of his work were to be seen, according to some writers at the beginning of last century, in the decorations of several houses in the Campo Marzio, Monte San Silvestro and the Campo dei Fiore, and the same authorities state that these paintings are distinguished by a predominance of yellow in the ground colour.

* Described as "Nobile del Seggio di Porta Nuova," in the *Dictionary of Architecture*, Ligorio himself signs a letter "Patricio Napolitano et Cittadino Romano."

† *Op. cit.*, p. 125.

‡ *Canonici MSS.*, 138.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Ligorio also found time to gratify his interest in the antiquities of Rome, and the destruction of the city provided him for many years with materials in such profusion that he was unable to complete more than rough notes before each new find was destroyed. During the twenty-eight years he spent in Rome many of the finest monuments were sacrificed by the cupidity of the Papal authorities, and Lanciani has related, in the pages of his *Destruction of Ancient Rome*, how all classes of Roman society, popes, cardinals, patricians, and wealthy business men scrambled for permits to procure materials from the buildings of the Roman Emperors.

In 1549 Ligorio painted two frescoes in the Oratory of S. Giovanni Decollato* near San Giorgio in Velabro. The design of the church of S. Giovanni has been credited to Ligorio, but as Francesco Salviati had, according to Vasari, been painting in the church in 1538, this is a mistake. Francesco was again at work in the building at the same time as Ligorio, and Vasari painted the picture over the high altar, which were not fixed until 1553, though the commission was given some considerable time before. In view of the relations between Ligorio, Salviati and Vasari in after years, the first contact between the three men is of interest.

About this time the little church of S. Giacomo e Martino was erected and may have been designed by Ligorio. It was, in 1563, restored and rededicated as S. Eligio dei Ferrari.

Ligorio now abandoned painting as a means of livelihood, and in the latter part of 1549 entered the service of Ippolito d'Este, Cardinal of Ferrara, at a salary of 7 scudi 53 baiocchi per month.

The Cardinal was keenly interested in the arts, both ancient and modern, of his country, and his collection of classic sculpture was world-famed.† In 1549 he was appointed Governor of Tivoli by Pope Paul III, and instructed Ligorio, who seems to have been engaged primarily on the strength of his antiquarian knowledge, to prepare designs for a country seat near the famous ruins of Hadrian's Villa on the banks of the Anio. According to Percier a villa had been commenced on the chosen site nine years before by Cardinal Barthelini della Cueva d'Albuquerque, Bishop of Cordova, but in comparison with the splendid creation of Ligorio it was a modest undertaking.

Ligorio at once set to work, and while preparing the site laid bare the remains of a Roman villa—that of Quintilius Varus—and in extending the area for his patron he demolished some of the eastern part of the town of Tivoli. It has been stated that, in all, one million scudi were spent in the preparation of the ground. Hadrian's Villa was laid under contribution for mate-

* Belonging to the Fraternity of the Misericordia. The plan and section are given in Letarouilly's *Rome Moderne*, pl. 171.

† A detailed description of the sculptures and some interesting reproductions of old views of the villa are to be found in a paper by Dr. Thomas Ashby in *Archæologia*, vol. lxi.

rials and for motifs in design, and, at the same time, Ligorio contrived to make a survey of the two villas and to prepare partial restorations dedicated to the Cardinal, which were a great advance upon the crude representation of topographical plans usual at the time.

The site of the Villa d'Este falls steeply from the south and the great mass of the Casino on the heights looks over the terraced gardens, beautiful even in their present neglect, but in the great days of the Cardinal far-famed and a wonder to travellers (Fig. 1). The building itself, intended as a summer residence for the Cardinal and his suite, numbering 250 persons not including servants, is a vast rectangular mass, almost devoid of architectural features save for the outside stairways to the principal doorway on the Piano Nobile. It is nearly 300 feet in length and is continued by lower terrace walls enclosing the private gardens and service courts along the whole of the south end of the site. An engraving by Du Perac published in 1573 shows belvedere above the main cornice carrying up the lines of the projecting end features of the façade, but it is doubtful if these were ever seriously contemplated.‡ The interior is decorated with frescoed walls and vaulted ceilings, painted mainly by the brothers Zuccheri, Taddeo and Frederigo. A species of incrustation of shells and pebbles, very much affected at the time, was largely used in the arabesques in the Casino as well as in the interiors of the many grottoes and fountains in the grounds.

In front of the Casino is a wide terrace which leads through formal gardens to the Terrace of the Fountains, some 500 feet long. At the eastern end is the Fountain of Arethusa and a Bath House, and at the western extremity the architect's love of the antique caused him to construct a curious model of Old Rome, now much mutilated but still interesting. It is rather a fanciful suggestion of Ligorio's than an attempt at detailed reproduction, and a pleasing transcript of the Island of Aesculapius stands in front, washed by a stream diverted from the Anio near by. Many other fountains of varied design, all with classical§ names, and grottoes enshrining marbles from the Cardinal's collection, show the fertility of Ligorio's invention and his freedom in adapting classical details to the needs of the moment. Terraces with ilex, cypress and laurel lead down to the kitchen gardens and entrance, and from many a vantage-point on the boundary walks superb views of the Campagna are obtained.

The Villa d'Este, the first authentic work of Ligorio as an architect, has exercised a never failing fascination on artists and writers, and has found expression in the many fine drawings and descriptions of such writers as Evelyn and Montaigne. In the gardens Ligorio was

‡ Dr. Ashby, in reproducing the view (*op. cit.*), points out that the gardens were treated in a spirit of anticipation (which may have been extended to the building).

§ E.g., Thetis, Hygeia, Flora, Pomona, and even Venus Cloacina !

PIRRO LIGORIO OF NAPLES, ROME AND FERRARA

assisted by Giacomo della Porta, whilst the hydraulic work was entrusted to the celebrated engineer Orazio Olivieri, to whom must be attributed the tasteless water-organ.

In 1555 Cardinal Giovanni Pietro Caraffa, a Neapolitan, was elected Pope, taking the name of Paul IV, and Ligorio was shortly afterwards invited to enter the Papal service, being associated, as far as the work at the Vatican Palace was concerned, with Sallustio Peruzzi, the son of Baldassare.

The great church of St. Peter's was now in the hands of Michaelangelo, and, in conjunction with Vignola,

dere, and this, with the Gran' Nicchione, which forms such a magnificent feature in the Giardino della Pigna, was finished in the reign of the succeeding Pope.

Ligorio was instructed to prepare designs for a Casino in the wood of the Belvedere, and the charming little building now known as the Casino Pio Quarto or the Villa Pia was commenced (Figs. 2 and 3).

The original design for the gardens, scarcely completed, was due to San Gallo, and Ligorio arranged his composition on a hillside sloping to the north-west. On the southern or higher side of an oval courtyard is a small Casino whither the Pontiff was wont to resort



FIG. 2.—VILLA PIA. THE COURTYARD AND THE LOGGIA

Ligorio was employed upon the fabric, but, failing to agree with Michaelangelo, he was withdrawn.* According to Letarouilly, there is among the Vatican archives a project for the restoration of the Thermae of Diocletian, dated 1558, by Ligorio, but this building was five years later reconstructed by Michaelangelo, who adapted a portion of the famous ruin for use as a monastery and the remainder as the church of S. Maria degli Angeli. A further drastic restoration at the hands of Vanvitelli was effected in 1749.

Ligorio and Peruzzi were now busied with the completion of Baldassare Peruzzi's courtyard of the Belve-

* Ligorio and Vignola were employed to supervise work that could not be reached except by ladders. See Prof. Aitchison, *R.A. Lectures, 1901*.

to escape the etiquette of the Papal Court, and on the opposite side is an open loggia. At the ends of the court are two arched porches, and from the ground outside two curved ramps lead down to the lower parterre, which contains a fishpond and adjoins a level green forming part of San Gallo's design. Much of the material came from the Stadium of Domitian, and the work was hurried forward only to be interrupted by the death of Paul IV, which occurred in 1559.

The new Pope, Pius IV, at once resumed the work. Salustio Peruzzi assisted in the general supervision, and the superintendent of works was Bernardino Manfredi, who had as foreman under him one Francisco da Como; the stucco work, or "grotteschi," was mostly executed by Rocca di Montefiascone. The

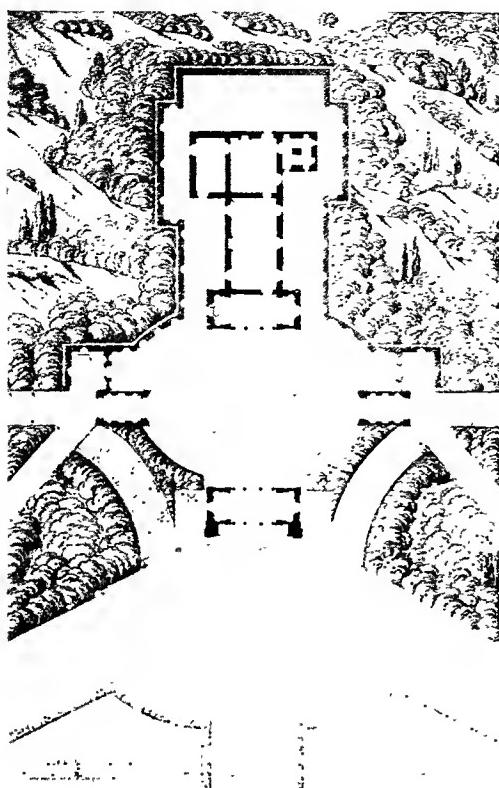


FIG. 3.—VILLA PIA. GENERAL PLAN
From Bouchet and Lochette

painters are mentioned at length by Vasari in the *Life of Taddeo Zuccherino*. There were Frederigo Barocchi, who, assisted by Leonardo Cungi and Durante del Nero, both from Borgo San Sepulcro, executed the paintings in the first floor rooms of the Casino ; Santi Titi, of Florence, who painted the room above the staircase ; Frederigo Zuccherino, who was responsible for the principal apartment and also for the Loggia across the courtyard ; Giovanni dal Carso, who, besides assisting with some of the stucco work, decorated a small room on the first floor, whilst Taddeo himself and Orazio Sammachini and Lorenzo Costa contributed panel paintings in the general scheme. The direction of the works and the selection and payment of the artists were entrusted to Cardinal Emilio, who was, in quite a modern manner, decorated by the grateful Pontiff on the completion of the building.

In spite of considerable ill-usage, the Villa Pia stands to-day fresh and sparkling, under the vast dome of St. Peter's ; a delightful contrast exhibiting the diverse architectural tendencies of the age. It has been the fashion to write of the Villa Pia as an adaptation of the villas of the Romans, but Ligorio has refined the mate-

rials drawn from his study of ancient art, and in an exceedingly small space he has produced an architectural work of the greatest interest.

In the year 1560, Ligorio, assisted by Peruzzi, made a restoration of part of the church of Ara Coeli, and in the same year the Lancelotti Palace in the Piazza Navona was commenced. According to Falda this building was designed by Ligorio. Leon Palustre,* however, describing the building as one that would add nothing to his reputation, rejects the attribution. The façade, though severe, is not dissimilar in type to one shown among the drawings in the Bodleian, and may well be by Ligorio.†

About this time it would appear that he was entrusted with the completion of the Sala Regia ‡ at the Vatican. During the progress of the work, Ligorio, who seems to have been greatly in favour with Cardinal Emilio, was approached by Salviati, to obtain for him, in conjunction with Daniello da Volterra,§ some portion of the decoration of the Sala. As a result of the architect's petition, supported by Daniello, Salviati, who was, even in the partisan view of his friend and biographer Vasari, a bad-tempered man, obtained employment and proceeded to obliterate one of Volterra's paintings. Vasari reports the result in the following words : " But Salviati, paying no regard to Piero, any more than to the others, . . . caused the architect from having been his friend to become in a certain sort his enemy." Ligorio eventually succeeded in taking the work out of Salviati's hands, who, incensed, left Rome in disgust.

The Sala Ducale also has been attributed to Ligorio and Peruzzi, but later restoration at the hand of Bernini has obliterated the original features.

Other works at the Vatican during the time of Paul IV and Pius IV were probably under the general supervision of the two officials, following the original designs by other architects.

Ligorio devoted some time to works of engineering and public utility. The harbours at Porto were surveyed, and in 1562 he was engaged in repairing the sea-wall and defence works at Città Vecchia, and there are some sketches in the Bodleian of his proposals, dated September of that year. In 1563 Ligorio undertook some extensive work at the Basilica of St. John Lateran; including the restoration of the side wall, and his work is still to be seen above the north porch erected by Fontana (Fig. 4). It consisted of a high wall and two bell towers connected by a balustrade, a segmental pediment

* *L'Architecture de la Renaissance*.

† *Op. cit.*, fol. 107.

‡ Commenced by San Gallo, frescoes by Pierino del Vaga, and left unfinished at his death in 1547.

§ Daniello Ricciarelli, the " breeches maker " of Michaelangelo's *Last Judgment*. He was a close friend of Ligorio, and his name appears in a partly defaced note in the Bodleian MSS., fol. 97.

PIRRO LIGORIO OF NAPLES, ROME AND FERRARA

and panels for the arms of the Pope. The wooden ceiling of the nave was also commenced for Pius IV and completed by Pius V. The nave itself was drastically remodelled by Borromini, and the balustrade was taken down by Fontana when he was building the arcaded porch.

Ligorio carried out some repairs to the Acqua Vergine, better known to visitors to Rome as the Fontana di Trevi, and simultaneously the building on the Via Flaminia, known as the Vigna of Pope Julius, was completed. The structure was commenced either by

little beyond the travertine facing to some of the walls.

In 1565 Ligorio, whose temperament seems to have been somewhat uncertain, had a disagreement with Fra Guglielmo della Porta, of whom he complains bitterly in a letter to the Cardinal Farnese, now the colleague of Cardinal Emilio in the administration of the works at the Vatican. In the same year Pius IV died, and was succeeded by Michele Ghislieri, who took the title of Pius V.

The new Pope had been created Bishop of Neri by



FIG. 4.—S. GIOVANNI IN LATERANO
Ligorio's work above north porch

Peruzzi or San Gallo, but was only partially finished. Pius IV, at his accession, found it rapidly falling into ruin and decided to adapt it as a resting-place for princes temporal and spiritual travelling to Rome. From the evidence of the building, substantiated to some extent by tradition, it would appear that Ligorio and Peruzzi again collaborated, the lower stage being by the latter, but the delicate and fanciful composition at the angle was no doubt due to Ligorio (Fig. 5).

In the following year (1564) Michaelangelo died and Pirro Ligorio and Vignola were appointed architects to the fabric of St. Peter's at a joint salary of three hundred ducats per annum. They appear, however to have done

Paul III, and one of his first acts on ascending the throne was to erect a tomb in the Church of S.M. Sopra Minerva to the memory of his patron. This was designed by Ligorio and executed by Jacopo and Tomaso Casinguola. Antique marbles were supplied for the sculptures and the work was finished in 1566.

About this time Ligorio was consulted about some repairs to the Sistine Chapel, and in the Bodleian* there is a drawing showing his proposals for remedying the damage caused by the unbuttressed vault, built in 1473, and now threatening to overturn the walls and destroy the paintings of Michaelangelo and other

* *Op. cit.*, fol. 106.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

masters. The drawing shows the system of shoring and of underpinning the walls, and describes the proposed piers projecting from the face of the old walls, urging the importance of prompt attention to the condition of the fabric.

In 1566, at the instance, it would seem, of Vasari, Ligorio was dismissed from the papal service for proposing to vary the designs of Michaelangelo. Vasari also lays upon Ligorio the responsibility for the collapse of the Ponte Sisto, which occurred in 1567. This was unfounded, as Vasari should have known, for a commission had been sitting since the August of 1565, and some months afterwards Vignola had been appointed architect, but Papal parsimony had prevented any steps being taken for the safety of the structure.

Ligorio now returned to the service of the Cardinal of Ferrara, his first patron, who, returning to Italy after the murder of the Duc de Guise, and being out of favour with the new Pope, had retired to Tivoli, where, amidst his rare collections and in his still unfinished villa, he passed the remainder of his life. The completion of the great gardens now occupied the attention of Ligorio for some months, and he was then brought to the notice of the Cardinal's nephew, the liberal-minded Alphonso II, Duke of Ferrara.

Alphonso had been educated in France, and on his succession he determined to revive the glories of the house of Este, and to make his court once more a centre of Humanist culture. To this end he was rebuilding his palace and gathering around him workers in the arts and in literature, among whom Ligorio was included. In 1568, therefore, Ligorio took up an appointment as engineer and architect to the Duke at a salary of 25 golden crowns per month, and left Rome for ever. While in Ferrara Ligorio married, but had no children.

In 1570 an earthquake caused the River Poto to inundate its banks, and the constructive skill of the ducal architect was severely tested in the necessary repairs to fortifications and buildings.

He also prosecuted his researches in the past remains of his country and assisted Enea Vico to classify the ancestral collections of the Duke.

Ligorio also found time to continue his own work on the antiquities of the Roman Empire, and to rearrange his notes, and he was as indefatigable as ever in his efforts to obtain fuller information and corresponded with many of the foremost antiquaries of the day. Among these was Julius Orsini, and there is a curious letter extant, dated 1577, requesting information about some inscriptions of the Frates Arvales, which had been discovered about three years after Ligorio had left Rome. This letter is signed "Pirro Ligorio. Romano!" * Another letter, now in the Bodleian, †

was written from Ferrara to Ercole Basso, of that city, regarding a medal of the Emperor Commodus, and is dated 1581. Professor Middleton, ‡ endeavouring to prove that Ligorio was alive after 1580, the date given by Milizia, § read the figure as 1585, but a careful examination of the MS. shows that the last inclined stroke in the Roman numerals, making the "I" into "V," has been added in a different ink, and, presumably, at some subsequent date.

About the date of his death, like his birth, there existed until recently many diverse statements. Bryan asserts that Ligorio died in 1573, Milizia as stated above, and several other writers following him give the date as 1580. Lanzi, however, placed the event in 1583 and Begni || is able to confirm this and to add the month of October.

Pirro Ligorio left a prodigious amount of manuscript and sketches, and Vossius alleges that he saw 120 volumes. They all passed into the possession of his nephews, and later into the libraries of two Ferrarese gentlemen, Signori Gardellini and Crispi, after which the collection was broken up, the greater portion having been secured by the Duke of Savoy for the famous Royal Library at Turin at a cost of 18,000 crowns. This comprises thirty folio volumes of manuscripts and sketches. There are ten volumes apparently copied from the Turin MSS., in the Museum at Naples. Two volumes are now in the Vatican Library, and there is one volume at the Bibliothèque National at Paris, and another at the Bodleian Library at Oxford, while there are a few sketches in the Royal Library at Windsor.

These represent the labours of twenty-eight years, principally in Rome, though other parts of Italy are represented, and were intended to form an *Archæological Dictionary and Cyclopædia*, divided into several books. The whole conception was far in advance of the usual type of such works in Ligorio's day. The illustrations, as will be seen on inspection of any of the MSS. or even of the reproductions to be found in the published works of modern archæologists, ¶ are drawings of considerable power, and are mostly in brown ink. The manuscript varies considerably, part being written in neat Italian script with finely drawn initial letters, which appears to be the final form of the portions so treated, while the remainder seems to be drafts in various stages of completeness and includes rough notes on odd scraps of paper. In some of the volumes drawings of architectural detail and composition are interspersed which vary so much in draughtsmanship and design that the student is forced to reject much as unworthy of the talented Neapolitan architect.

His published works are few and mostly in the

† *Archæologia*, vol. li, pp. 490 et seq.

§ *Memori degli Archetti*, Parma, 1781.

|| *The Vatican, its History and Treasures*, New York.

¶ E.g., Lanciani and Middleton.

* Reproduced by P. de Nolhac in the *Bibliothèque de l'Ecole des Hautes Etudes*, 1887.

† *Canonici MSS.*, fol. 1 et seq.

PIRRO LIGORIO OF NAPLES, ROME AND FERRARA

volumes of other authors issued after his death. Amongst these is the plan of the Villa Adriana restored by Pirro Ligorio, first undertaken for the Cardinal d'Este, and printed in 1634, at the direction of Cardinal Antonio Barberini, who instructed his architect, Contini, to bring the plan up to date. Contini, however, seems to have contented himself with publishing Ligorio's plate with the text in Latin, merely describing the identification letters. Poleni (Vol. V) gives a description of the Amphitheatre of Verona by Ligorio ; and a treatise on the vehicles of the ancients

thus : " Unfortunately he was not born to speak the truth ; he was a born impostor and forger, so that it is always difficult and sometimes impossible to decide whether his evidence, when unsupported by more trustworthy witnesses, rests on any foundation of truth . . ." But a few sentences after he adds : " I have myself found so much useful and honest information in Ligorio's manuscript volumes . . . that I cannot bring myself to brand him with the stigma." Professor Middleton, writing in *Archæologia*, has also testified to their value.† The same uncertainty exists with other of



FIG. 5.—THE VIGNA OF POPE JULIUS

was published in Frankfort in 1671, under the title of *De Re Vehiculari*. In the two *Thesauri* of Graevius there are descriptions of the Villa Adriana and Villa d'Este at Tivoli, both from the pen of Ligorio. There were in addition drawings of the Circus Maximus and maps of Italy, Naples and Greece, but on the manuscript volumes rests his archæological reputation. There are three manuscript volumes on Rome and the Campagna, dedicated, the first to Cardinal Ippolito d'Este, the second to Cardinal Alessandro Farnese, and the third to the Holy Trinity, and there is the great cyclopædia already referred to.

The value of this mass of information has been much debated. For instance, Lanciani * describes the author

Ligorio's critics. Ludovico Muratori, in his *Thesaurus*, speaks bitterly of his want of faith. Oliviera wrote a long monograph on the frauds of Ligorio, whilst Dr. Borghese, quoted in the *Nouvelle Biographie*, says, referring to a suggestion of investigating the ambiguities of Ligorio : " When your project is complete you will be surprised at the number of apocryphal monuments caused by this man." Other writers of less erudition and greater imagination have charged Ligorio with systematic fabrication of false antiquities, coins and medals.

Ligorio in some of his notes confesses that he was unable to vouch for the correctness of his surveys, and he is unsparing in his condemnation of much of the de-

* *Wanderings in the Roman Campagna*.

† *Op. cit.*

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

struction that he witnessed. Moreover, the MSS. that remain are not complete, and on that ground he is entitled at least to a recommendation to mercy. Mistakes there undoubtedly are, but Ligorio was not alone in these. Palladio, for instance, in a drawing in the Burlington-Devonshire collection, mistakes the Palace of Augustus for a public bath, while Lanciani * gives an illustration of the Regia drawn by Ligorio, and says : "Evidently the latter was under the impression that the building was the Arch of Janus." This must have been one of Ligorio's earliest drawings, as the discovery took place in 1543. Lanciani admits that many of the particulars are genuine and bear comparison with the existing fragments.

Raoul Lochette † has probably supplied the true explanation when he suggests that during the feverish exploration that was carried on in the sixteenth century Ligorio made his sketches in haste, and the lacunæ which occurred would not be filled until the leisure of his later years, when at Ferrara, rewriting and redrawing his material, he would add to and alter his work from memory, the particular relic by that time being probably destroyed. † There is evidence in the letters referred to above of his efforts to obtain further information, even after he had left Rome for good.

Apart from Ligorio's place as a pioneer in epigraphy, there can be no serious difference of opinion on his architectural achievements, though there is little contemporary notice of him.

Vasari came into contact with Ligorio, as we have seen, early in the latter's career, but to Vasari one man towered over the world of art ; hence, when Ligorio dared to express his views of Michaelangelo's work at St. Peter's, he became to him an object of detestation. There was, in addition, the dismissal of Salviati, related above, to add to the resentment shown in the fact that no life of Ligorio appears in the *Vite*, and any references that Vasari felt necessary were so brief as to imply that the performances to which they relate were

* *Ruins of Ancient Rome.*

† Bouchet and Lochette, *Villa Pia*.

‡ Ligorio himself, while he protests against the destruction of some of the finds, says (*Canonici MSS.*, fol. 19), speaking of Roman stucco, "Take three parts of pounded Parian marble, easily got from among the Ruins of Rome and from broken Statues."

unworthy of extended notice. Vignola, the close associate for many years of Ligorio, was the object of a similar display of feeling on Vasari's part, § and for a like reason—namely, the marked influence that Vignola and his friends gained over Julius III to the detriment of Michaelangelo.

In his private letters Vasari was more outspoken, and often careless of his facts. Of this Mr. R. W. Carden gives a good instance in his biography, where in a letter dated 1566, to his friend Vincenzio Borghini, Vasari says : "I have received orders to examine the substructure of the Ponte Sisto, which is in a dangerous state ; also the works at St. Peter's from which Pirro has just been dismissed, though not before he has made, I don't know how many mistakes." The mistakes would appear to be departures from Michaelangelo's designs, for Ligorio was not in any way likely to fail in either design or construction, and his reputed connection with the Ponte Sisto was, as pointed out above, untrue.

Ligorio's fame as an architect needs no more than the Villa d'Este or the Villa Pia to show that he was a worthy descendant of the great artists who had made Rome the centre of culture. Upon such men scholarship sat lightly. Antique forms, eagerly studied, were adapted and recast as fancy dictated. The pedantry that was later to fetter architecture was as yet undreamed of.

In the buildings of Ligorio, though their designer was probably better versed in the details of Roman architecture than any other man of his day, there is no suggestion that he ever attempted to seek for rules. His skill in construction, and a fine selective capacity in design, combined to give the building the impress of the social life of his day.

Like all his contemporaries he was a man of many occupations—artist, architect, engineer and antiquary by turns ; but as an architect he will ever rank high, if only for the examples on the banks of the Anio and in the wood of the Belvedere, where art and nature have been blended in perfect harmony by this almost unknown artist-archaeologist who has been described as "the most genial artist of his time." †

§ It is true that there is a notice of Vignola in the *Life of Taddeo Zuccheri*, but only because the architect of the Palace of Caprarola seemed to require some brief notice. The paintings of Taddeo are described in full.

¶ Lanciani, *Wanderings in the Roman Campagna*.

The Acoustics of the Auditorium—Part II*

BY G. A. SUTHERLAND, M.A.

WE have seen that some reverberation, particularly in large halls and in the case of orchestral music, is very desirable in order to give the necessary fullness of tone, and the incompatible demands of speech and music in this respect might seem to make it impossible to design a large hall which would be satisfactory for both speech and music. The problem is certainly a difficult one, and where possible separate rooms should be used for separate functions. If this is impossible there is, fortunately, a solution of the problem which has proved satisfactory in practice, though scientific experiment on the point has not yet been carried out.

We have seen that reverberation and intensity go hand in hand, so that the deadness that characterises music in a hall of fairly small reverberation is due, in part at any rate, to the accompanying small intensity. We have the means of increasing the intensity of the music and giving it fullness of tone by employing the phenomena of forced vibration and resonance. The increase in intensity produced by the forced vibration of a suitable board or soundbox is considerable, but it is very small compared with the increase produced by resonance, as may easily be shown by experiment.

In a room resonance may be of two kinds. The column of air in the room has a natural period of its own, and it will resound readily to a particular note. This is most noticeable in a small empty room such as a bathroom. In a large room the response will in any case be to a much lower note, and is unlikely to occur noticeably except in the case of a building of cruciform shape.

But resonance may also occur by the mechanical vibration of the walls of the room, as was quite clear in considering the absorption curve for wood panelling. It may at first seem surprising that a comparatively good absorber should increase the intensity in the room; and, to understand this, one has to look into the nature of resonance. If a note is sounded near a wall which tends naturally to vibrate in the same period, the wall absorbs the energy—*i.e.*, it converts it into the mechanical energy of vibration. This wall vibration is, in the first instance, of insufficient amplitude to give an audible sound, but if the note be sustained the energy of the wall will increase sufficiently for it to become a sounding body also. When the note is stopped the wall energy becomes insufficient to produce sound, and the wall acts again merely as an absorber.

So that a resonating body will perform the desirable function of acting both as an increaser of intensity and a

decreaser of reverberation. The same will be true of forced vibrations, but in a much less degree.

The resonator will be most effective when placed near the sounding body, and wood panelling should therefore be placed near the orchestra to get the best effect. In any case, it should not be placed too far from the orchestra, otherwise the direct and the resonated sound may reach part of the audience at such an interval of time that an echo or confusion results. Of course, any sound transmitted through the framework of the building will reach the audience practically as soon as the direct sound.

It might seem that a resonator, responding as it does to one particular note, could only produce distortion. Here the difficulty may be met by providing a series of resonators for different notes; one way in which this might be done would be to arrange for different thicknesses of wood panelling on studding to be placed at varying intervals, which could be arranged to give the same external appearance though resounding to different notes in its different parts; but here again the results of scientific experiments are still lacking.

In any case, there is always the gain from forced vibration. In particular, a six-inch space under the floor boards of an orchestra pit has in one case been found to produce almost equal reinforcement over the whole scale. And wood panelling in the neighbourhood of an orchestra gives successful results in many different halls.

In this connection it is interesting to note that Vitruvius suggests that theatres constructed of wood, having wooden floors, do not need the system of resonant vases; while those constructed of rubble, squared stone or marble do.

It has been pointed out that, in an ordinarily shaped room, and in the absence of special circumstances, the effect of an absorbent on reverberation is independent of its location; but this is a far different thing from saying that its effect on the *acoustics* of a room is independent of its location. Shortness of reverberation is only one desirable factor. The absorbent material must be placed so as to contribute to other desirable factors. Fortunately it can be relied on to reduce the reverberation wherever it is placed. The best location for it in practice depends on the shape of the auditorium.

The principle on which adequate loudness is assured in an ordinary auditorium is so to design the room that no member of the audience receives within one-fifteenth of a second less sound than he would if he were distant less than about 50 feet from the speaker. Out of doors in still air it is possible to hear farther than this distance, but in a hall, with a certain amount of

* The 1st part of this article appeared in the JOURNAL of 22 September.

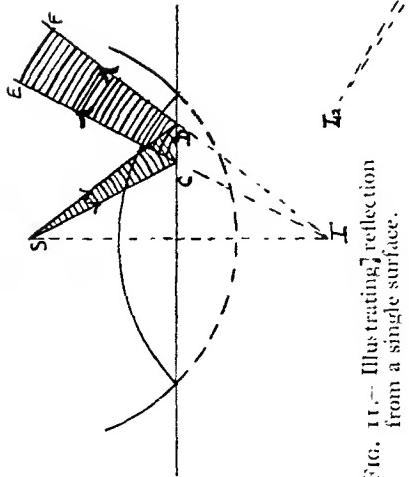


FIG. 11.—Illustrating reflection from a single surface.

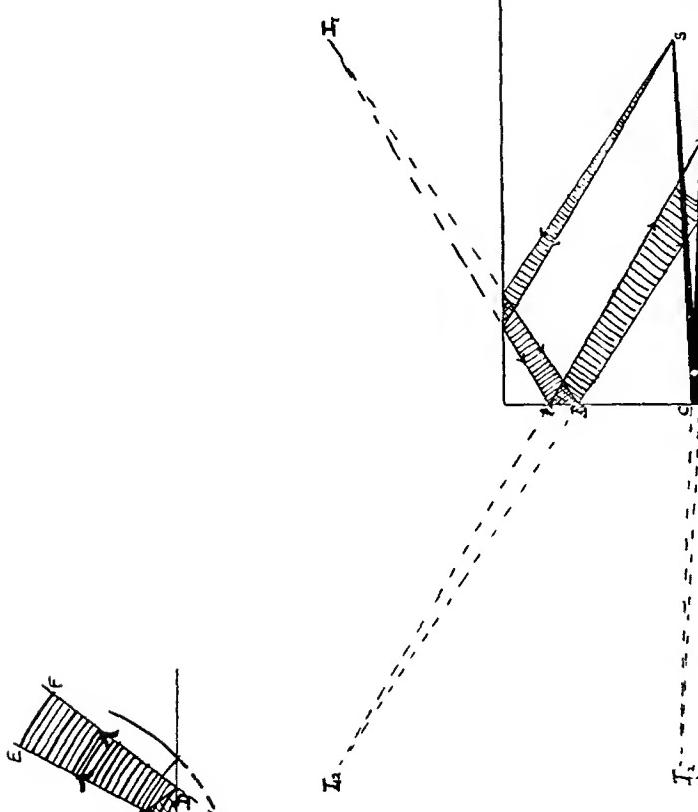


FIG. 17.—Showing long reflected paths tending to produce echoes.

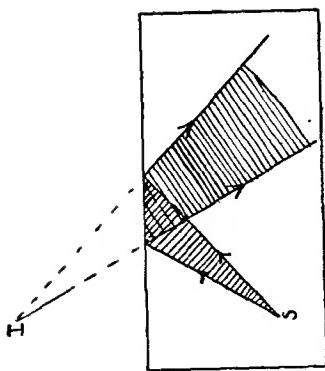


FIG. 12.—Showing the effect of the ceiling in reflecting sound to the rear seats.

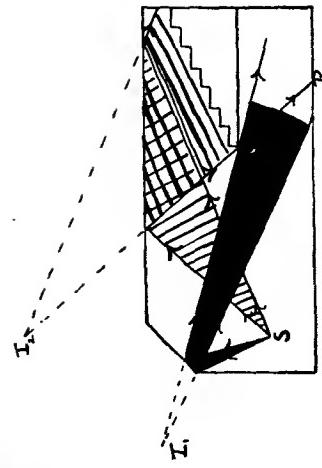


FIG. 14.—Showing the advantage of a ceiling splay for reflecting sound below a gallery.

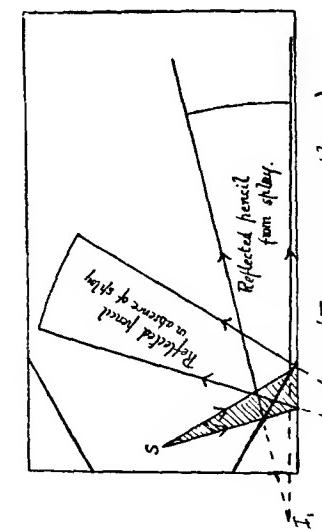


FIG. 13.—Showing the effect of a splay on the side wall in reflecting sound to the rear seats.

THE ACOUSTICS OF THE AUDITORIUM

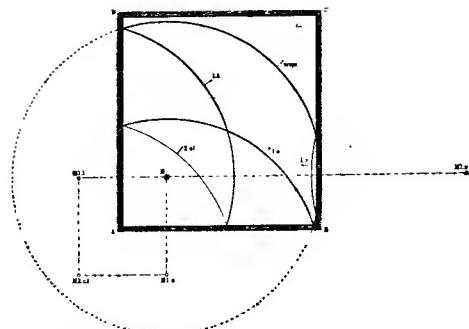


FIG. 15.—Acoustic diagram for a nearly square room with a source of sound, M , near one corner.

rustling and similar noises and a longer reverberation, 50 feet is a suitable standard to take. In small halls this presents no difficulty. All that has to be arranged for is that the speaker shall have an uninterrupted view of everyone in the audience, no member of which shall be at a greater distance than 50 feet.

In any room the path of the sound is simply obtained, to a first approximation, by the method of images which will now be explained. If a train of sound waves proceeding from a point S (Fig. 11) strikes a reflecting surface AB , the sound waves, after reflection, proceed as though their origin was not S but I , which is at an equal distance behind the surface on the perpendicular from S . I is called the image of S . If we confine our attention to a portion CD of the wall, then we find the reflected path by joining I to the points CD and producing them to EF as shown. The shaded part shows the progress of the wave.

Where one dimension, the length, is greater than 50 feet, the direct sound must be supplemented in the case of the rear seats by sound reflected from a hard surface. This surface is most conveniently the ceiling, since the upward part of the wave reaches the ceiling without loss. This is illustrated in Fig. 12.

At the same time the splaying of the side walls may be of advantage since it reflects some of the sound to the seats at the back of the room instead of to the front, where it is not required. This will be clear from Fig. 13. The most suitable angle for the splay will be that which confines the reflected sound as far as possible to the part of the room where it is most needed. This will vary for different shapes and sizes, but in any case may be determined from the diagrams.

Where there is a gallery it may be advantageous also to splay the ceiling, since otherwise the ceiling reflection, though reaching the gallery, may not be able to reach the seats at the back of the hall underneath it. This is clearly illustrated in Fig. 14, where the shaded beam represents the flat ceiling reflection to the gallery, and the black beam the reflection from the splay to the seats on the floor. Neglecting the bending that always takes place to some extent, the point R represents the farthest

back point to which the sound reflected from the flat ceiling could penetrate.

In any case, it will be possible, by applying this acoustic diagram method, so to design the building as to ensure sufficient loudness everywhere in the room. The diagram method may be employed more completely than we have yet done to investigate the progress of a sound wave. As an example of this, we may take the case of a nearly square room with the source near the corner, as shown in Fig. 15, where the complete wave system for a single wave is drawn at a particular instant of its progress. That this does give us a true picture of wave motion in simple cases may be seen from the photograph 8 of Fig. 16, the photographs being of water waves at about one-tenth second intervals in a similar vessel with a source near the corner.

The loudness at any point of a room may be calculated by applying the inverse square law. If I is the intensity of the direct sound at a distance of 50 feet, then the intensity of the direct beam at any distance, d , is $\frac{I}{d^2}$. If the sound suffers reflection then it is diminished in the ratio of the reflection coefficient R of the

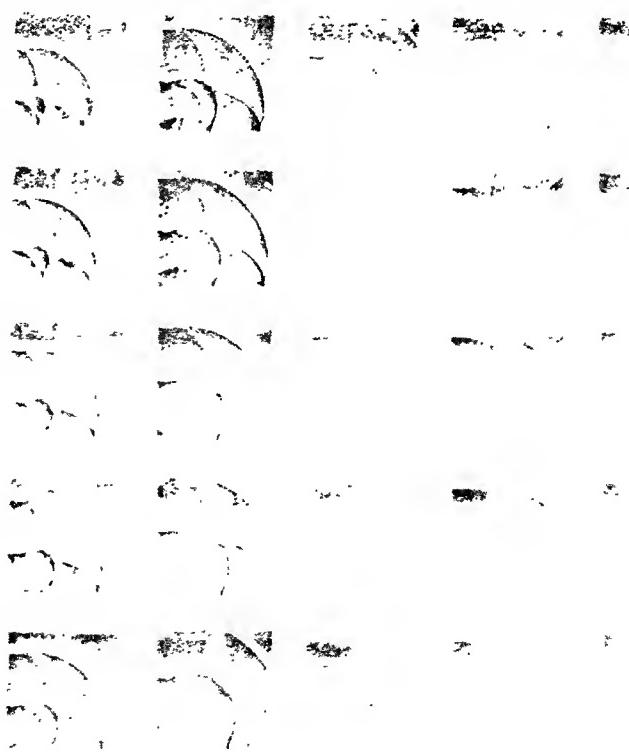


FIG. 16.—Photographs at one-tenth second intervals of water waves emanating from a point near one corner in a vessel of the same shape as the room represented in Fig. 15.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

surface it strikes, the reflection coefficient being given by $1-A$, where A is the absorption coefficient. The formula for intensity at a point after one reflection is thus: $R_1 I \frac{50^2}{d_1^2}$ where d_1 is the distance of the point from the image I_1 in the surface considered. If there are two

regard to loudness, it also shows what over long reflecting paths, which would produce echoes, are to be expected. These can then be eliminated by the suitable disposition of absorbent material. Examples of mischievous reflecting surfaces are shown in Fig. 17. Highly absorbent material should thus be placed at

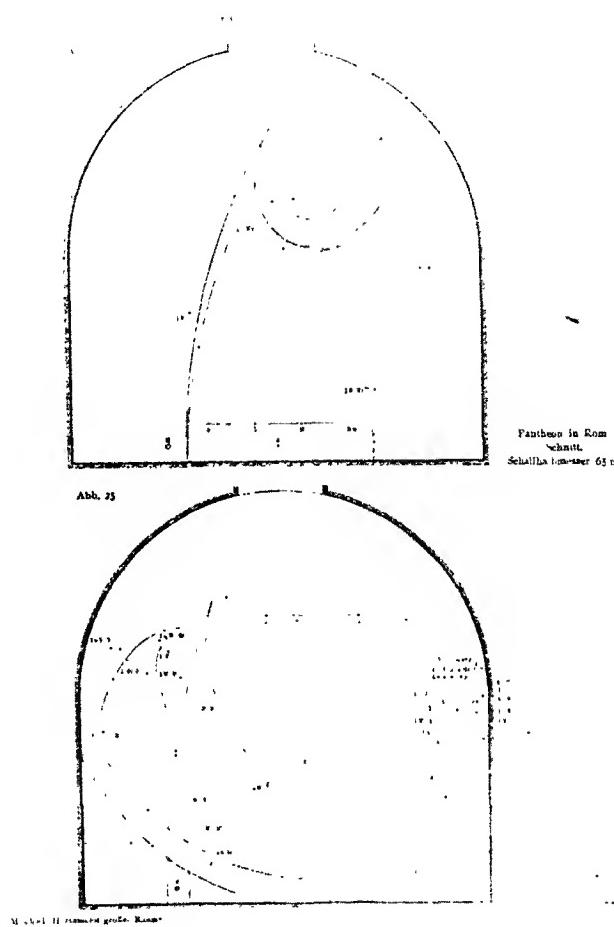


FIG. 18.—Acoustic diagrams for the Pantheon in Rome.

reflections, then the formula is $\frac{R_1 R_2 I}{d_{12}^2} 50^2$ where d_{12} is the distance of the point from I_{12} , the image of I_1 in the second surface.

Thus the total intensity at any point will be :—

$$I \times 50^2 \left(\frac{1}{d^2} + \frac{R_1}{d_1^2} + \frac{R_2}{d_2^2} + \dots + \frac{R_1 R_2}{d_{12}^2} + \dots \right)$$

This will be adequate if it is at least equal to I .

The acoustic diagram not only gives information with

AB and CD . It may be remarked that the rear surface is usually a suitable place for absorbent material.

The diagram may also be used to investigate the effects of curved walls, and the bending of sound that will take place round pillars, beams and similar obstacles. Its application here, however, ceases to be simple, and cannot usefully be discussed in this article. That it does give the true form of the waves from a curved surface may be seen by comparing Figs. 18 and 19. Fig. 18 is the diagram for the Pantheon at Rome,

[SUPPLEMENT]

ADDITIONS TO THE R.I.B.A. LIBRARY FROM
OCTOBER 1922—SEPTEMBER 1923

THE REFERENCE LIBRARY.
Books and Pamphlets.

Aberdeen Society of Architects

Annual Report. pam. 8o. *Aberdeen* 1923
PRESENTED BY THE SOCIETY.

Adams (George)

Essay on Vision, briefly explaining the fabric of
the eye and the nature of vision, etc.,
2nd ed. 8o. *Lond.* 1792
(Bound up with *Hutton Principles of Bridges*).
Geometrical and graphical essays, a description
of mathematical instruments, 2nd ed., by
W. Jones. 8o. *Lond.* 1797
PRESENTED BY MR. A. P. OPPÉ, M.A.

Alberti (Leon Battista)

I dieci libri di architettura, tradotti in Italiano
da Cosimo Bartoli. 4o. *Rome* 1784
PRESENTED BY MRS. LOUIS SHORE NIGHTINGALE, FOR MR.
E. P. WARREN.

Aldridge (H R)

Administration of the Town Planning duties of
Local Authorities. 8o. *Lond.* 1922
PRESENTED BY THE AUTHOR.

Amsterdam

MAATSCHAPPIJ TOT BEVORDERING DER BOUKUNST.
Bouwkundig Weekblad. fo. *Amsterdam* 1922-23
PRESENTED BY THE MAATSCHAPPIJ.

Anderson (A R)

Short bibliography on Scottish history and
literature. 8o. *Glasgow* 1922
PRESENTED BY THE AUTHOR.

Anonymous

Principles of design in architecture traced in
observations on buildings, etc., in a series of
letters to a friend. 8o. *Lond.* 1819
Rudiments of ancient architecture, etc., 3rd ed.
8o. *Lond.* 1804
PRESENTED BY MR. A. P. OPPÉ.

American Institute of Architects

IOWA CHAPTER.
Proceedings of the 19th Annual Convention.
8o. *Iowa* 1921
PRESENTED BY THE AMERICAN INSTITUTE OF ARCHITECTS.

Architectural Association

Journal, 1922-23. 4o. *Lond.* 1922-23
Year book and diary, 1923. la. 4o. *Lond.* 1923
PRESENTED BY THE ASSOCIATION.

Auctioneers' and Estate Agents' Institute

Journal. 8o. *Lond.* 1922-23
PRESENTED BY THE INSTITUTE.

Barnes (H)

Newcastle-on-Tyne. 4o. *Liverpool* 1923
PRESENTED BY THE AUTHOR.

Berks, Bucks and Oxon Architectural Association

Year book, 1922. 8o. *Reading* 1922
PRESENTED BY THE ASSOCIATION.

Berry (William)

Encyclopædia Heraldica, 3 vols. 4o. *Lond.* [1828]
PRESENTED BY MR. C. R. PINK.

Birmingham

BIRMINGHAM ARCHITECTURAL ASSOCIATION.
Green book. 1922-23. 8o. *Birmingham* 1922
PRESENTED BY THE ASSOCIATION.

Bolton (A T)

Life and work a century ago, an outline of the
career of Sir John Soane. pam. 4o. *Lond.* 1922
PRESENTED BY THE AUTHOR [F.]

Boston, U S A

CITY PLANNING BOARD.
Report, 1922. pam. 8o. *Boston* 1922
PRESENTED BY THE BOARD.

Bournville

Bournville Housing and the Bournville village
trust. pam. 8o. *Bournville* 1922
PRESENTED BY THE PUBLICATIONS DEPARTMENT, BOURN-
VILLE.

Bragdon (Claude)

The Beautiful Necessity, seven essays on
Theosophy and Architecture.
4o. *Rochester, N.Y.* 1910
PRESENTED ANONYMOUSLY.

Brereton (Austin)

Literary history of the Adelphi and neighbour-
hood. la. 8o. *Lond.* [1908]
PRESENTED BY THE AUTHOR.

British Archaeological Association

Journal, vol. 28, part 1. 8o. Lond. 1922
PRESENTED BY THE ASSOCIATION.

British Fire Prevention Committee

"Red Book," No. 240. Air raid damage in London, by Major E. C. P. Monson and Ellis Marsland, with map showing where bombs fell, and maps showing where bombs fell in Paris and Venice. 8o. Lond. 1923
PRESENTED BY THE COMMITTEE.

British Portland Cement Research Association

The Setting of Portland Cement, by W. Lawrence Gadd. pamph. 8o. Lond. 1922
PRESENTED BY THE ASSOCIATION.

British School at Athens

Annual, vol. xxiv. la. 8o. Lond. [1923]
Supplementary paper No. 1. The unpublished objects from the Palaikastro Excavations, 1902-1906. Described by R. C. Bosanquet and R. M. Dawkins. 4o. Lond. 1923
PRESENTED BY THE BRITISH SCHOOL.

British Engineering Standards Association

Standard Specifications. Nos. 153, 5,003. pamph. 8o. Lond. 1922
Nos. 6, 110, 117, 121, 124, 126, 127, 130, 140, 141, 146, 147, 148, 155, 167, 168, 174-184, 187. pamph. 8o. Lond. 1923
List of Standard Specifications and reports. pamph. 8o. Lond. 1923
Indexed list. pamph. 8o. Lond. 1923
PRESENTED BY THE ASSOCIATION.

Brussels

ACADEMIE ROYALE DE BELGIQUE.
Bulletin de la Classe des Beaux-Arts. 8o. Brussels 1922-23
Bulletin de la Classe des Lettres et des Sciences morales et politiques. Brussels 1922-23
Annuaire, 1922. 8o. Brussels 1922
Compte rendu de la célébration du 150e anniversaire. 8o. Brussels 1922
PRESENTED BY THE ACADEMY.

SOCIÉTÉ CENTRALE D'ARCHITECTURE DE BELGIQUE.
10th Congress International des Architects.
Programme et Règlement. pamph. 8o. Brussels 1922
PRESENTED BY THE SOCIETY.

Brussels—continued

UNION DES VILLES ET DES COMMUNES BELGES.
Le Mouvement Communal, 1922-23. 8o. Brussels 1922-23
PRESENTED BY THE SOCIETY.

Budden (L B)
An introduction to the theory of architecture. M.S. fo. 1923
PRESENTED BY THE AUTHOR.

Byzantine Research and Publications Fund

Church of Our Lady of the Hundred Gates in Paros, by H. H. Jewel and F. W. Hasluck. fo. Lond. 1920
PRESENTED BY THE BYZANTINE RESEARCH AND PUBLICATION FUND.

Canada

DEPARTMENT OF THE INTERIOR—FORESTRY BRANCH.
Distillation of hardwoods in Canada, by J. S. Bates. Bulletin No. 74. 8o. Ottawa 1922
PRESENTED BY THE DEPARTMENT.

Cardiff

SOUTH WALES INSTITUTE OF ARCHITECTS.
Report, 1922-23. 8o. Cardiff 1922
1923-24. 8o. Cardiff 1923
PRESENTED BY THE INSTITUTE.

WELSH HOUSING AND DEVELOPMENT ASSOCIATION.
Year book, 1923. 4o. Cardiff 1923
PRESENTED BY THE ASSOCIATION.

Caroe (W D)

"Tom Tower," Christ Church, Oxford, some letters of Sir Ch. Wren to John Fell, Bishop of Oxford, with a chapter by H. H. Turner, *Savilian Professor of Astronomy*, and another by Arthur Cockrane, *Chester Herald*. 4o. Oxford 1923
PRESENTED BY W. DOUGLAS CAROE, M.A., F.S.A.

Catalonia

ASOCIACIÓN DE ARQUITECTOS.
Anuario, 1922. 4o. Barcelona 1922
PRESENTED BY THE ASOCIACIÓN.

Chambers (Julius)

Book of New York; forty years' recollections of the American metropolis. 4o. New York 1912
PRESENTED BY MR. DONN BARBER, F.A.I.A.

Chatham

INSTITUTE OF ROYAL ENGINEERS.
Journal, vol. xxxvii. la. 8o. *Chatham* 1923
PRESENTED BY THE INSTITUTE.

Chemical Society

List of Offices and Fellows. 8o. *Lond.* 1922
PRESENTED BY THE SOCIETY.

Clerc (Frederic de Jersey) and Williams (L E)

Church of St. Mary of the Angels, Wellington,
N.Z. pam. 4o. *Wellington* 1922
PRESENTED BY THE AUTHORS.

Clerks of Works' Association of Great Britain

Journal 1922-23. 8o. *Lond.* 1922-23
PRESENTED BY THE ASSOCIATION.

Concord (N.H.)

ARCHÆOLOGICAL INSTITUTE OF AMERICA.
Journal, 1922 8o. *Concord. N.H.*, 1922
PRESENTED BY THE INSTITUTE.

Compendium Publishing Co.

Architects' Compendium 4o. *Lond.* 1923
PRESENTED BY THE COMPANY.

Concrete Institute

Recommendations to Inspectors, Clerks of
Works and Foremen concerning the execu-
tion of Reinforced Concrete Works.
pam. 8o. *Lond.* 1918
PRESENTED BY THE INSTITUTE.

Concrete Utilities Bureau

Specification for Concrete roads. pam. 8o. *Lond.* [1922]
PRESENTED BY THE BUREAU.

Conder (Edward)

Records of the Hole Craft and Fellowship of
Masons, with a Chronicle of the History of
the Worshipful Company of Masons of the
City of London. 4o. *Lond.* 1894
PRESENTED BY THE WORSHIPFUL COMPANY OF MASONS.

Connon (J W)

Legal registration of Architects. sui. 8o. *Leeds* 1888
PRESENTED BY C. H. BRODIE [F.]

Dublin

ARCHITECTURAL ASSOCIATION OF IRELAND.
Constitution. Bye-laws, Syllabus of Meetings,
Library Catalogue, etc. pam. 4o. *Dublin* 1922
PRESENTED BY THE ASSOCIATION.

Dublin—continued

INSTITUTE OF CIVIL ENGINEERS.
Transactions, Vols. 47 and 48. 8o. *Dublin* 1923
PRESENTED BY THE INSTITUTE.

ROYAL DUBLIN SOCIETY.

Proceedings, Vol. XVII. 8o. *Dublin* 1922
PRESENTED BY THE SOCIETY.

ROYAL SOCIETY OF ANTIQUARIES OF IRELAND.

Vol. 52, part 2; Vol. 53, part I. 8o. *Dublin* 1922
PRESENTED BY THE SOCIETY.

Edinburgh Architectural Association

Details of Scottish domestic architecture from
the 16th and 17th centuries. fo. *Edinburgh* 1922
PRESENTED BY THE PUBLISHERS.

Edinburgh

INCORPORATION OF ARCHITECTS IN SCOTLAND.
Bye-laws. 8o. [Edinburgh 1923]
Kalendar, 1922-23. 8o. *Edinburgh* 1922
Quarterly. 8o. *Edinburgh* 1922-23
PRESENTED BY THE SOCIETY.

Empire Forestry Association

Journal, Vol. 2, No. 1. 2 copies. 8o. *Lond.* 1923
List of Forest Officers of the British Empire.
2 copies. 8o. *Lond.* 1923
PRESENTED BY THE ASSOCIATION.

Empire Timber Exhibition

Catalogue of exhibits. 8o. *Lond.* 1920
PRESENTED BY THE SECRETARY.

Evans (L C)

Acquiring and replanning congested areas.
pam. 4o. *Lond.* 1923
PRESENTED BY THE TOWN PLANNING INSTITUTE.

Fowler (R C), Clapham (A W)

Beeleigh Abbey. 8o. *Lond.* 1922
PRESENTED BY MR. R. E. THOMAS.

Freitag (J K)

Fire prevention and fire protection. 2nd ed.
8o. *New York & Lond.* 1921
PRESENTED BY CHAPMAN & HALL, THE PUBLISHERS.

Garden Cities and Town Planning Association

Garden Cities and Town Planning. 4o. *Lond.* 1922-23
Labour saving in small houses. [The Report
of the Sub-Committee of the Women's
Section]. pam. 4o. *Lond.* 1923
PRESENTED BY THE ASSOCIATION.

Gourlay (Charles)

Construction of a house. 2nd ed. 4o. *Lond.* 1922
PRESENTED BY B. T. BATSFORD, THE PUBLISHER.

Great Britain**WAR OFFICE.**

Barrack Synopsis. Part I. Authorised scales and general rules. Part 2. List of buildings authorised for various Units. Part 3. Details of accommodation and fittings.
la. 8o. *Lond.* 1923

PRESENTED BY THE WAR OFFICE.

Groom (P G)

Dry rot and sanitation. 8o. *Lond.* 1923
PRESENTED BY THE AUTHOR.

Guild of Builders

Building Guild in London. Report and balance sheet, 1921. 4o. *Lond.* 1922
PRESENTED BY THE GUILD.

Guildford**SURREY ARCHAEOLOGICAL SOCIETY.**

Collections, Vol. 34. 8o. *Guildford* 1921
PRESENTED BY THE SOCIETY.

Guillim (J)

Display of Heraldry. fo. *Lond.* 1679
PRESENTED BY MR. C. R. PINK.

Hawkins (J S)

History of the origin and establishment of Gothic architecture: account of Cæsar Cæsarianus and of his translation of Vitruvius; investigation into the principles and proportions of the Gothic Style: and an enquiry into the mode of painting upon and staining glass. 8o. *Lond.* 1813
PRESENTED BY MR. A. P. OPPÉ.

Hébrard (Ernest)

L'Arc de Galère et l'église Saint Georges à Salonique. pam. 8o. *Paris* 1920
PRESENTED BY THE AUTHOR.

Hellyer (S S)

Plumber and sanitary houses. 3rd ed.
la. 8o. *Lond.* [1884]
PRESENTED BY C. H. BRODIE [F.]

Hutton (C)

Principles of bridges, mathematical demonstrations of the properties of arches, thickness of piers, etc. 2nd ed. 8o. *Lond.* 1801
PRESENTED BY MR. A. P. OPPÉ.

Hyderabad Archaeological Society

Journal, 1919-20. 8o. *Bombay* 1921
PRESENTED BY THE SOCIETY.

Hyderabad State**ARCHÆOLOGICAL SERIES.**

No. 5. Munirabad stone inscription of the 13th year of Tribhuvanamala (Vikramaditya VI) la. 4o. *Calcutta* 1922
PRESENTED BY THE GOVERNMENT OF INDIA.

ARCHÆOLOGICAL DEPARTMENT.

Annual report, 1922. la. 4o. *Calcutta* 1922
PRESENTED BY THE GOVERNMENT OF INDIA.

Imperial College of Science and Technology, London

Calendar, Session 1922-23. 8o. *Lond.* 1922
PRESENTED BY THE REGISTRAR.

Imperial War Graves Commission

War Graves: how the cemeteries abroad will be designed. Report by Lt.-Col. Sir Frederic Kenyon. sm. 8o. *Lond.* 1918
Graves of the fallen. ob. 8o. *Lond.* —
PRESENTED BY THE COMMISSIONERS.

India**ARCHÆOLOGICAL SURVEY.**

Catalogue of the Museum of Archaeology at Sanchi, Bhopal State. 4o. *Calcutta* 1922
Report, 1919-20. by Sir John Marshall. fo. *Calcutta* 1922

Western Circle.

Progress report for the year ending 31st March 1920. fo. *Calcutta* 1921
— 1921. fo. *Bombay* 1922

PRESENTED BY THE GOVERNMENT OF INDIA.

JAMMU AND KASHMIR STATE.

Annual report of the Archaeological Department for 1975. fo. *Jammu* [1919]
— 1976. fo. *Jammu* [1920]

HIGH COMMISSIONER FOR INDIA.

Report of the Indian Students' Department for the year April 1921—March 1922. fo. *Lond.* 1922

PRESENTED BY THE SECRETARY.

Institution of Civil Engineers

Minutes of Proceedings, vols. 213, 214. 8o. *Lond.* 1922
List of Members. 8o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Institution of Structural Engineers

Journal. 4o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Illuminating Engineering Society

The Illuminating Engineer. 8o. *Lond.* 1922-23
PRESENTED BY THE SOCIETY.

Institution of Heating and Ventilating Engineers

Heating and ventilation of passenger ships, by
J. L. Musgrave. pamph. 8o. *Lond.* 1922

PRESENTED BY THE INSTITUTION.

Institution of Mechanical Engineers

Proceedings. vols. i and ii, 1922. 8o. *Lond.* 1922
— vol. i, 1923. 8o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Institution of Municipal and County Engineers

Handbook 1923-24. 8o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Institution of Structural Engineers

Articles of Association. 4o. *Lond.* 1922
Year book, 1922-23. 4o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Iron and Steel Institute

Journal, vol. cv. and cvi. 8o. *Lond.* 1922

PRESENTED BY THE INSTITUTE.

Jackson (Sir T G)

Renaissance of Roman architecture. Part 3.
France. 4o. *Cambridge* 1923

PRESENTED BY THE AUTHOR.

Jaggard (W R) and Drury (F E)

Architectural building construction—
Vol. 2, part 1. 8o. *Cambridge* 1922
Vol. 2, part 2. 8o. *Cambridge* 1923

PRESENTED BY THE AUTHOR.

Kenyon (F G)

Education, secondary and university.
pam. 8o. *Lond.* 1919

PRESENTED BY THE AUTHOR.

Journals

American Magazine of Art, 1922-23.
American Architect and Architectural Review,
1922-23.
Architect, 1922-23.
Architects' Journal, 1922-23.
Architectural and Building Journal of Queens-
land, 1923.
Architectural Forum (America), 1922-23.
Architectural Record (America), 1922-23.
Architectural Review, 1922-23.
Architecture (America), 1923.
British Builder, 1922-23.
Builder, 1922-23.
Building News, 1922-23.
Building Review, 1922-23.
British Clayworker, 1922-23.
Concrete, 1922-23.
Construction, 1922-23.
Country Life, 1922-23.
Gaceta de Obras Publicas, 1922-23.
Illustrated Carpenter and Builder, 1922-23.
Irish Builder and Engineer, 1922-23.
La Construction Moderne, 1922-23.
Municipal Engineering, 1922-23.
Pencil Points, 1922-23.
Stone, 1922-23.
Studio, 1922-23.
Teknisk Ukeblad (Christiania), 1922-23.
Quarry, 1922-23.
Zeitschrift für Bauwesen, 1922-23.

PRESENTED BY THE EDITORS & PROPRIETORS.

Portfolio of Plates from The Architects' and
Builders' Journal. sm. fo. *Lond.* 1914

PRESENTED BY G. M. MERRIMAN [4].

Rupam, Nos. 12, 13, 14. fo. *Calcutta* 1922

PRESENTED BY THE INDIAN SOCIETY OF ORIENTAL ART.

Arquitectura Española, Nos. 1 and 2.

4o. *Madrid* 1923

PRESENTED BY SEÑOR PABLO GUTIÉRREZ Y MORENO.

Kidder (F E) and Nolan (Thomas)

Architects' and Builders' Handbook. 17th
edition. 8o. *New York & Lond.* 1921

PRESENTED BY THE PUBLISHERS.

Land Agents' Society

List of Members. 8o. *Lond.* 1922

PRESENTED BY THE SECRETARY.

Leeds

YORKSHIRE ARCHAEOLOGICAL SOCIETY.

- Journal, part 105. 8o. *Leeds* 1923
 Collection of Manuscripts from 1st Dec. 1917
 to 30th Nov. 1922. pam. 8o. *Leeds* 1923
 List of printed books and pamphlets, 1st Dec.
 1921 to 30th Nov. 1922. pam. 8o. *Leeds* 1923

PRESENTED BY THE SOCIETY.

LeicesterLEICESTER AND LEICESTERSHIRE SOCIETY OF
ARCHITECTS. Annual Report 1921-22.

PRESENTED BY THE SOCIETY.

Leigh (Valentine)

- The moste profitable and commendable Science,
 of Surveying of Landes, Tenementes, and
 Hereditamentes . . . Whereunto is also
 annexed . . . a treatise, of the measuryng of
 all kirdes of Landes, etc. **B.L.** 2nd
 edition. 8o. *Lond.* 1578

PRESENTED BY W. F. HEDGES [F.]

Lethaby (W R)

- Form in civilisation 8o. *Lond.* 1922
 PRESENTED BY THE OXFORD UNIVERSITY PRESS.

Lewes

SUSSEX ARCHAEOLOGICAL SOCIETY.

- Collections. Vols. 63 and 64. 8o. *Cambridge* 1922
 PRESENTED BY THE SOCIETY.

Lincoln

ASSOCIATED ARCHITECTURAL SOCIETIES.

- Reports of papers. Vol. xxxvi, part 1.
 8o. *Lincoln* [1922]
 PRESENTED BY THE SOCIETY.

LiverpoolSCHOOL OF ARCHITECTURE—DEPARTMENT OF CIVIC
DESIGN.
 Town Planning Review, 1922-23.
 8o. *Liverpool* 1922-23**Liverpool Architectural Society**

- Kalendar and report. 8o. *Liverpool* 1922
 PRESENTED BY THE SOCIETY.

Liverpool Engineering Society

- Rules and Regulations, list of members.
 pam. 8o. *Liverpool* 1922
 Transactions. Vol. 43 8o. *Liverpool* 1922
 PRESENTED BY THE SOCIETY.

London Architectural Society

- Part 1. Rules, list of members.
 Essays : Modern architecture, by E. Aikin.
 Rise and progress of Gothic architecture, by
 S. Beazley, Jun.
 Situations and accompaniments of villas, by
 Joseph Woods, Jun.
 Dilapidations, by J. Wood, Jun. 8o. *Lond.* 1808
 Part 2. Essays : Modern theories of taste, by
 J. Wood, Jun.
 Bridge building, by J. Savage.
 Foundations, by J. Elmes. 8o. *Lond.* 1810
 PRESENTED BY MR. A. P. OPPÉ.

London County Council

- SURVEY OF LONDON. VOL. VIII.
 Parish of St. Leonard, Shoreditch. 4o. *Lond.* 1922
 PRESENTED BY THE PUBLISHERS.

**London Master Builders' and Allied Industries
Association**

- Handbook and diary, 1923. sm. 8o. *Lond.* 1923
 PRESENTED BY THE ASSOCIATION.

London Society

- Journal, 1922-23. 8o. *Lond.* 1922-23
 PRESENTED BY THE SOCIETY.

Madrid

- SOCIEDAD CENTRAL DE ARQUITECTOS.
 Arquitectura. 4o. *Madrid*, 1922-23
 PRESENTED BY THE SOCIETY.

Manchester

- MANCHESTER LITERARY AND PHILOSOPHICAL SOCIETY.
 Memoirs and proceedings, vol. 65, part 2.
 8o. *Manchester* 1922
 PRESENTED BY THE SOCIETY.

Marsh (C F) and Dunn (W)

- Manual of reinforced concrete, 4th ed.
 sm. 8o. *Lond.* 1922
 PRESENTED BY CONSTABLE & CO., THE PUBLISHERS.

Marshall (Sir John)

- Conservation manual, handbook for Archaeological Officers entrusted with the care of ancient monuments. 8o. *Calcutta* 1923
 PRESENTED BY THE GOVERNMENT OF INDIA.

Melbourne

- ROYAL VICTORIAN INSTITUTE OF ARCHITECTS.
 Journal of Proceedings, Vol. 20. 4o. *Melbourne* 1922
 PRESENTED BY THE INSTITUTE.

Middlesbrough

CLEVELAND TECHNICAL INSTITUTE.
Bulletin. Vol. 2, Nos. 1–10. 8o. *Middlesbrough* 1923
PRESENTED BY THE INSTITUTE.

Minty (E Arden)

Some account of the history of Petersfield.
• 8o. *Lond.* 1923
PRESENTED BY THE AUTHOR [F.]

Montreal

ENGINEERING INSTITUTE OF CANADA.
Charter, bylaws, list of members and professional engineering acts. 8o. *Montreal* 1923
PRESENTED BY THE INSTITUTE.

ROYAL ARCHITECTURAL INSTITUTE OF CANADA.
Year book, 1922.
PRESENTED BY THE INSTITUTE.

Murray (J A H)

New English Dictionary. Vol. x. (Wash—
Wavy); (Wh—Whisking). fo. *Lond.* 1923
PRESENTED BY MR. BENJAMIN INGELOW [F.]

NATIONAL FEDERATION OF BUILDING TRADES' EMPLOYERS
National Builder. Vol. i. fo. *Lond.* 1921–22
PRESENTED BY THE FEDERATION.

New York

AMERICAN INSTITUTE OF ARCHITECTS.
Journal, 1922–23. 4o. *New York* 1922–23
PRESENTED BY THE INSTITUTE.

ARCHITECTURAL LEAGUE.

Year book and catalogue of annual exhibition.
3 vols. fo. *New York* 1913–1915
PRESENTED BY MR. ALFRED YOCKNEY.

Year book and catalogue of annual exhibition.
2 vols. fo. *New York* 1921–1922
PRESENTED BY THE LEAGUE.

AMERICAN SOCIETY OF CIVIL ENGINEERS.

Proceedings, 1922–23. 8o. *New York* 1922
PRESENTED BY THE SOCIETY.

Nicholson (Peter)

Architectural dictionary. 2 vols. 4o. *Lond.* 1819
PRESENTED BY MRS. STEVENSON.

Paris

SOCIÉTÉ DES ARCHITECTES DIPLOMÉS PAR LE
GOUVERNEMENT.
Annuaire, 1923. pam. 8o. *Paris* 1923
Bulletin, 1922–23. 8o. *Paris* 1922–23
Assemblée générale, 1922. 8o. *Paris* 1922
PRESENTED BY THE SOCIETY.

SOCIÉTÉ CENTRALE DES ARCHITECTES.

Annuaire, 1923, 2 copies. 8o. *Paris* 1923
L'Architecture, 1922–23. 4o. *Paris* 1922–23
PRESENTED BY THE SOCIETY.

Pittsburgh, Penn.

MELLON INSTITUTE OF INDUSTRIAL RESEARCH.
List of books, etc., by members, 1911–1922.
pam. 8o. *Pittsburgh* 1922
PRESENTED BY THE INSTITUTE.

Philipp (H J) and Paulsen (F)

Bauten vom Wiederaufbau Ostpreussens.
4o. *Berlin* 1922
PRESENTED BY THE AUTHORS.

Planché (J R)

Pursuivant of Arms or heraldry founded upon
facts, 2nd ed. 8o. *Lond.* 1873
PRESENTED BY MR. C. R. PINK.

Print Society

Sixty-six etchings by Members of the Society,
selected and edited by E. Hesketh
Hubbard, with an Introduction by
Kineton Parkes 4o. *Woodgreen Common* 1923
PRESENTED BY THE SOCIETY.

Prior (E. S.)

Eight chapters on English mediæval art.
8o. *Cambridge* 1922
PRESENTED BY THE AUTHOR.

Quennell (M and C H B)

Everyday life in the New Stone, Bronze and
Early Iron Ages. 8o. *Lond.* [1922]
PRESENTED BY B. T. BATSFORD, THE PUBLISHER.

Rathborne (Aaron)

The Surveyor in foure bookees sm. fo. *Lond.* 1616
PRESENTED BY E. ALEXANDER YOUNG [A.].

Richardson (George)

Book of ceilings. fo. *New York* [1922]
(Reprint of 1776 edition published in London.)
PRESENTED BY THE PUBLISHER, W. HELBURN, NEW YORK.

Richardson (G)

New designs in architecture (English and French text).
fo. *Lond.* 1792

PRESENTED BY J. STARKIE GARDINER.

Rome

COMMISSIONE ARCHEOLOGICA COMUNALE DI ROMA.

Bulletino. Indici generali, 1872-1920.
sm. fo. *Rome* 1922
Bulletino, Anno L. la. 8o. *Rome* 1923

PRESENTED BY THE COMMISSIONE ARCHEOLOGICA.

MINISTERO DELLA PUBBLICA ISTRUZIONE.

Elenco degli edifici monumentali.

Alessandria.	sm. 8o. <i>Rome</i> 1911
Arezzo.	sm. 8o. <i>Rome</i> 1916
Bergamo	sm. 8o. <i>Rome</i> 1914
Bologna.	sm. 8o. <i>Rome</i> 1915
Caserta.	sm. 8o. <i>Rome</i> 1917
Catania.	sm. 8o. <i>Rome</i> 1921
Cuneo	sm. 8o. <i>Rome</i> 1914
Le Sporadi	sm. 8o. <i>Rome</i> 1913
Modena.	sm. 8o. <i>Rome</i> 1920
Novara.	sm. 8o. <i>Rome</i> 1911
Perugia.	sm. 8o. <i>Rome</i> 1914
Pisa.	sm. 8o. <i>Rome</i> 1921
Ravenna.	sm. 8o. <i>Rome</i> 1916
Rovigo.	sm. 8o. <i>Rome</i> 1915
Siracusa.	sm. 8o. <i>Rome</i> 1917
Teramo.	sm. 8o. <i>Rome</i> 1916
Torino.	sm. 8o. <i>Rome</i> 1912
Tripolitania—Cirenaica—Marmarica—Eritrea —Somalia.	sm. 8o. <i>Rome</i> 1912

PRESENTED BY C. CANZIANI

Royal British Colonial Society of Artists

List of Members. Charter. Bye-laws and Rules.
pam. 8o. *Lond.* 1920

PRESENTED BY THE SOCIETY.

Royal Commission on London Government

Report on the Local Government of Greater London.
8o. *Lond.* 1923

PRESENTED BY THE COMMISSIONERS.

Royal Institute of British Architects

Programme of the Conference held at Cardiff in conjunction with the South Wales Institute of Architects.
sm. 8o. *Lond.* 1922

Royal Institution of Great Britain

PROCEEDINGS. Vol. xx. Part 3. 8o. *Lond.* 1922
Vol. xxiii. Part 1. 8o. *Lond.* 1923

PRESENTED BY THE INSTITUTION.

Royal Sanitary Institute

Journal, 1922-23. List of members. 8o. *Lond.* 1923
PRESENTED BY THE SOCIETY.

Royal Society of Arts

Journal. 8o. *Lond.* 1922-23
PRESENTED BY THE SOCIETY.

Salwey (Joseph)

Art of drawing in lead pencil. 8o. *Lond.* [1921]
PRESENTED BY B. T. BATSFORD, LTD., THE PUBLISHERS.

Scapa Society

Journal, No. 11. November, 1922. 8o. *Lond.* 1922
PRESENTED BY THE SOCIETY.

Scientific and Industrial Research Board**BUILDING RESEARCH BOARD**

Heat transmission through walls, concretes, and plasters.
pam. 8o. *Lond.* 1923

Seager (S H)

Lighting of picture galleries and museums. S.P. 1923
PRESENTED BY THE AUTHOR.

Selley (Ernest)

Inquiry into the working of the Building Guilds.
4o. *Lond.* [1922]
(Bound with *The Building Guild in London.*)

Spain**El Arte en España Series****Aguilar y Cuadrado (Rafael)**

Guadalajara, Alcalá de Henares. 12o. *Barcelona* [n.d.]

Beruete y Moret (A de)

Velasquez in the Prado Museum. 12o. *Barcelona* [n.d.]

Cabello y Lapiedra (L M)

Ciudad Rodrigo. 12o. *Barcelona* [n.d.]

Cossio (M B)

El Greco. 12o. *Barcelona* [n.d.]

Domenech y Montaner (Luis)

Poblet. 12o. *Barcelona* [n.d.]

Domenech (Rafael)

Goya in the Prado Museum. 12o. *Barcelona* [n.d.]

Florit (J M)

Aranjuez. 12o. *Barcelona* [n.d.]

- Spain—continued**
- Gestoso (José)**
Seville. 12o. *Barcelona* [n.d.]
- Gestoso y Pérez (José)**
Museum of Painting at Seville. 12o. *Barcelona* [n.d.]
- Gómez-Moreno (M)**
Valladolid. 12o. *Barcelona* [n.d.]
Alhambra, 2 vols. 12o. *Barcelona* [n.d.]
- Lampérez y Romea (Vicente)**
Cathedral of Burgos. 12o. *Barcelona* [n.d.]
- Mérida (J R)**
Monastery of San Lorenzo del Escorial. 8o. *Barcelona* [n.d.]
- Navas (Conde de las)**
Royal Palace of Madrid. 12o. *Barcelona* [n.d.]
- Torbado y Florez (Juan)**
Cathedral of Leon. 12o. *Barcelona* [n.d.]
- Vielva (Matías)**
Palencia. 12o. *Barcelona* [n.d.]
PRESENTED BY SEÑOR PABLO GUTIÉRREZ Y MORENO.
- Stevens (E F)**
The American hospital of the twentieth century.
la. 8o. *New York* 1921
Papers on hospital construction
4o. *New York* 1919–1922
PRESENTED BY THE AUTHOR.
- Society of Antiquaries**
Archæologia, 1921. la. 4o. *Lond.* 1921
Journal, 1922–23. 8o. *Lond.* 1922–23
PRESENTED BY THE SOCIETY.
- Society of Architects**
Architecture. 4o. *Lond.* 1922–23
PRESENTED BY THE SOCIETY.
- Society for the Promotion of Hellenic Studies**
Journal, vol. xlii, part 1 and 2. 1922.
fo. *Lond.* 1922
PRESENTED BY THE SOCIETY.
- Surveyors' Institution**
Journal, 1922–23
List of Members, 1923. 8o. *Lond.* 1923
Town Planning, memorandum and legal notes
to the Housing, Town Planning Acts, etc.,
by William Allen. pam. 8o. *Lond.* 1923
PRESENTED BY THE INSTITUTION.
- Tokio**
INSTITUTE OF JAPANESE ARCHITECTS.
Journal, 1922–23. la. 8o. *Tokio* 1922–23
PRESENTED BY THE SOCIETY.
- Townsend (W G P)**
Modern decorative art in England, vol. i,
Woven and printed fabrics, wall papers,
lace and embroidery. fo. *Lond.* [1922]
PRESENTED BY THE PUBLISHERS, R. T. BATSFORD, LTD.
- Vasi (M)**
New guide of Rome, Naples and their environs.
8o. *Rome* 1841
(English translation of Vasi's *Guida de Roma e de' contorni*)
PRESENTED BY C. H. BRODIE [F.]
- Victoria and Albert Museum**
Armenian Architecture from the 6th to 13th
century. Catalogue of an exhibition of
architectural details and ornament, by
A. Fetvadjian. pam. 8o. *Lond.* 1921
- DEPARTMENT OF WOODWORK.**
Catalogue of English furniture and woodwork,
vol. i, Gothic and Early Tudor. 4o. *Lond.* 1923
Review of the principal acquisitions during the
year 1919. 4o. *Lond.* 1922
PRESENTED BY THE TRUSTEES.
- Vienna**
OSTERREICHISCHER INGENIEUR- UND ARCHITEKTEN-
VEREIN.
Festschrift 75 Jahre. 4o. *Vienna* 1923
PRESENTED BY THE SOCIETY.
- Ware (Samuel)**
Treatise on the properties of arches and their
abutment piers; bridges and the flying
buttresses of cathedrals. 8o. *Lond.* 1809
PRESENTED BY MR. A. P. OPPÉ.
- Warton (T), Bentham (J) and Others**
Essays on Gothic architecture, 2nd edition
8o. *Lond.* 1802
(Bound up with the *Rudiments of Ancient Architecture*.)
PRESENTED BY MR. A. P. OPPÉ.
- Washington**
AMERICAN INSTITUTE OF ARCHITECTS.
Annual, 1923–24. 4o. *Washington* 1923
PRESENTED BY THE INSTITUTE.
- Welsh Housing and Development Association**
Management of House Property, by E. L.
Chappell. pam. 4o. *Cardiff* 1922
PRESENTED BY THE AUTHOR.

Wied (Regnar)

London, Architektur & Architekter, 1066–
1825. pam. 8o. *Copenhagen* 1922

PRESENTED BY THE AUTHOR.

Wynne (F E)

Relation of health to site and use of site.
pam. 4o. *Lond.* 1923

PRESENTED BY THE TOWN PLANNING INSTITUTE.

PURCHASED.**Abercrombie (P), Kelly (S), and Fyfe (F)**

Deeside regional planning scheme
4o. *Liverpool & Lond.* 1923

Abercrombie (P), Kelly (S and A)

Dublin of the future, the new town plan and
report of the adjudicators.
4o. *Liverpool & Lond.* [1923]

Adams (H C)

Domestic sanitation and house drainage.
8o. *Lond.* 1923

Androuet du Cerceau (J)

Livre d'architecture.
fo. *Paris* 1648

Anonymous

Picturesque Greece.
la. *Lond.* [1923]

Avati (Aldo)

Visioni di Architettura.
fo. *Turin* [n.d.]

Beaucamp (F)

La Flandre et L'Artois.
fo. *Paris* 1923

Beunat (Joseph)

Dessins d'ornements d'architecture de J. B. . . .
époque du premier empire.
fo. *Paris* [n.d.]

Bolton (A T)

Architecture of Robert and James Adam (1758–
1791). 2 vols.
fo. *Lond.* 1922

Bormann (Richard), Editor

Aufnahmen mittelalterlicher Wand-und-Dec-
kenmalereien in Deutschland unter mit-
wirkung von H. Kolb und O. Vorlaender.
2 vols.
fo. *Berlin* [n.d.]

Brown (F C)

Modern English churches.
fo. *Cleveland, Ohio* 1923

Brown (G Baldwin)

The Fine Arts, 4th ed.

8o. *Lond.* 1920

Capart (Jean)

Egyptian art, trans. by W. R. Dawson.

la. 8o. *Lond.* 1923

Carroll (J)

Principles and practice of perspective.

1. Elementary.
2. Advanced.

4o. *Lond.* [1892]

4o. *Lond.* 1908

Collectt (T E)

London of the future.

8o. *Lond.* 1923

Conjoint Board of Scientific Societies

Aims, objects and results of the first year's

work, 1916–17.
pam. 8o. *Lond.* 1918

Confirmed minutes.
8o. *Lond.* 1922

Work of the Board.
8o. *Lond.* 1922

JOINT BUILDINGS COMMITTEE.

Report.
pam. 8o. *Lond.* 1919

Reports for the years 1918, 1919 and 1920.
pam. 8o. *Lond.* 1919–21

Report of the Metric Committee on the com-
pulsory adoption of the metric system in
the United Kingdom.
4o. *Lond.* 1922

WATER POWER COMMITTEE.

Preliminary, second and final reports.
pam. 8o. *Lond.* 1918–21

Croce (Benedetto)

Aesthetic as science of expression and general
linguistic. Translated from the Italian by
Douglas Ainslie.
2nd ed. la. 8o. *Lond.* 1922

Cross (W S) and Cross (K M B)

Practical Notes for Architectural Draughtsmen.
Series 2. Technical Schools and Science build-
ings.
fo. *Lond.* 1922

Series 3. Working drawings of commercial
buildings and business premises.
fo. *Lond.* [1923]

Dean (A D) and Rimmer (E J)

Digest of the law and practice relating to Local
Government in England and Wales.

8o. *Lond.* 1914

Deverin (Henri)

100 plans types de constructions urbaines.

4o. *Paris* [n.d.]

Doncaster**DONCASTER REGIONAL PLANNING SCHEME.**

Report by P. Abercrombie and T. H. Johnson.

la. 4o. *Lond.* 1922

- Eason (A B)**
Prevention of vibration and noise. 8o. *Lond.* 1923
- Eberlein (H D)**
Villas of Florence and Tuscany.
sm. fo. *New York* 1922
- Eliasberg (Alexander), Editor**
Russische Baukunst. 4o. *Berlin* 1922
- Field (W B) and French (T E)**
Architectural drawing. 4o. *New York* 1922
- Fletcher (B F) and Fletcher (H P)**
Quantities, 9th edition. 8o. *Lond.* 1923
- Gordon (J W)**
Generalised linear perspective. 8o. *Lond.* 1922
- Grey (G W)**
Building supervision. 2nd ed. 8o. *Lond.* 1922
- Gromort (Georges)**
Italian renaissance architecture, translated by
G. F. Waters. 4o. *Paris* 1922
Jardins d'Italie. fo. *Paris* 1922
- Hegemann (W) and Peets (E)**
American Vitruvius, an architect's handbook of
civic art. fo. *New York* 1922
- Hessling (E)**
Documents de style empire.
i. Orfèvrerie et horlogerie. fo. *Paris* [n.d.]
ii. Le luminaire. fo. *Paris* [n.d.]
- Hildesley (P T)**
English furniture designs. fo. *Lond.* 1923
- Hind (A M)**
Giovanni Battista Pisanesi, a critical study with
a list of his published works and detailed
catalogues of the Prisons and Views of
Rome. 4o. *Lond.* 1922
- Wenceslaus Hollar and his Views of London
and Windsor in the 17th century. 4o. *Lond.* 1922
- Home Office**
Report of the Committee on Industrial Paints.
fo. *Lond.* 1923
- Höver (Otto)**
Kultbauten des Islam. 8o. *Leipzig* 1922
- Hubbard (George)**
On the site of the Globe playhouse of Shake-
speare. 4o. *Lond.* 1923
- Jenkinson (H S)**
Practical guide of procedure in the preparation
of a Town Planning Scheme. 4o. *Lond.* 1923
- Jourdain (M)**
English decoration and furniture of the later
18th century (1760–1820). fo. *Lond.* 1922
English interiors in smaller houses from the
Restoration to the Regency, 1660–1830.
fo. *Lond.* 1923
- Journals**
Burlington Magazine. 4o. *Lond.* 1922–23
Concours public d'architecture, 16th year.
fo. *Paris* [n.d.]
Dedalo. 4o. *Milan* 1922–23
Gazette des Beaux Arts. 4o. *Paris* 1922–23
L'Architettura Italiana 1922. fo. *Turin* 1922
Le Case Popolari e le Città Giardino. 4o. *Milan* 1922
School Science Review, vol. iv., No. 16. 8o. *Lond.* 1923
Specification. fo. *Lond.* 1923
Wasmuth's Monatshefte für Baukunst
fo. *Berlin* 1922–23
- Kimball (Fiske)**
Domestic architecture of the American Colonies
and of the Early Republic. fo. *New York* 1922
- Kinsila (E B)**
Modern theatre construction. 8o. *New York* [1917]
- Kip (J)**
Nouveau théâtre de la Grande Bretagne.
3 vols. in 4. fo. *Lond.* 1714–16
- Koch (Hugo)**
Gartenkunst im Städtebau. 4o. *Berlin* 1923
- Langlois (V)**
Les hôtels de Clisson de Guise et de Rohan-
Soubise au Marais. 4o. *Paris* 1922
- Law and Law Reports**
Law of Property Act 1922. la. 8o. *Lond.* 1922
- Mâle (Emile)**
L'art religieux du XIIe siècle en France.
4o. *Paris* 1922

Townsend (R T)

"Country Life" book of building and decorating.
4o. *Garden City, N.Y.*, 1922

Van Buren (E Douglas)

Archaic ficle revetments in Sicily and Magna
Grecia. 4o. *Lond.* 1923

Werdelmann (W)

Hästueren. 4o. *Godesberg* [n.d.]

Wiegand (Theodor) and Others

Archaische Poros—Architektur der Akropolis
zu Athen. text, sm. fo. *Leipzig* 1904
plates, fo. *Leipzig* 1904

Zucker (Paul)

Die Brücke. 8o. *Berlin* 1921

DRAWINGS, PRINTS.**Fergusson (J)**

Drawings of Indian Architecture, 2 vols. fo. [n.d.]
PRESENTED BY MR. MURRAY.

George (Ernest)

Sketch book of the Riviera. fo. [n.d.]
PRESENTED BY G. H. HEATHCOTE [F.], VICE-PRESIDENT
R.I.B.A.

Greenwich**ROYAL NAVAL HOSPITAL.**

Plan attributed to Sir Ch. Wren, mounted.	n.d. D.
Plan as designed and advancing.	1699 D.
Plan of the College buildings.	n.d. D.
Plan before construction of Romney Road.	n.d. D.
Plan of College.	1728 D.
Plan of College.	1769 D.
Plan of College, mounted.	n.d. D.
Plan showing Queen Anne's building.	1779 D.
Lithograph showing fire at Chapel.	1779
Plan of Queen Mary's Cupola made after the fire.	n.d. D.
Chapel: Interior elevation, by James Stuart.	1782 D.

Chapel: Elevation of East and West ends, by James Stuart.	1782 D.
Plan and Elevation of pulpit, clerk's desk.	1827 D.
Roof truss to Chapel plan and elevation.	n.d. D.
Section of the West end of Chapel.	1781 D.
Section from ground to turret of Chapel.	n.d. D.
King Charles Building, 7 sheets, by John Yenn.	n.d. D.

QUEEN MARY'S BUILDING.

Plan of Vestibule.	n.d. D.
Plan over entrance to Chapel.	n.d. D.
Plan of organ loft.	n.d. D.
Plan of roof level of Chapel.	n.d. D.
Plan at dome of Chapel.	n.d. D.
Plan of boys' dormitory.	1796 D.
Plan showing probable line of foreshore.	n.d. D.

Greenwich—(continued)**KING CHARLES' BLOCK.**

Mounted tracing.	n.d.
River front, measured drawings and detail, 4 sheets, by H. Cummings.	1850
8 Photographs of Greenwich Hospital.	

DEPOSITED ON PERMANENT LOAN BY THE GOVERNORS OF
GREENWICH HOSPITAL.

Hardwick (P S)

31 perspective sketches in colour.

DOMESTIC WORK.

Rendcomb, Addington Manor (3), The Hall,
Barnstable, Gilston, House at Sompting,
A gardener's cottage, Three drawings
unidentified.

SCHOOLS.

Freemasons' School, Wandsworth; St. Thomas'
School, Canterbury; Charterhouse First
Sketch, Brington School.

BANKS.

Australian Bank, City, and Jones Lloyd Bank.

RAILWAY STATION.

Euston, The Booking Hall; G.W.R. Hotel (3),
The coffee room, interior view.

CHURCHES.

Ireland: St. Columba College, and Adare,	
Limerick.	
England: Aldershot, Deptford and Lambeth.	
One drawing unidentified.	

DURHAM.

Town Hall, Sketch of interior.

ALBERT MEMORIAL.

Three competition drawings, perspectives.

PRESENTED BY MRS. LYONS THROUGH MR. P. MORLEY
HORDER [F.]

Oxford

Views of Colleges—Baliol; Corpus Christi;
Christ Church and the Cathedral; Exeter;
King's Hall and Brazenose; Lincoln;
Merton; New; Oriel; Queens; St. Edmund's Hall; St. Mary Magdalene;
Trinity; University; Wadham.

View of Towers of Oxford from the Bell Tower
to Magdalene College.

View of High Street, Oxford, from Queen's
College to St. Mary's Church.

Central buildings of the University—St. Mary
the Virgin; Radcliffe Camera; Bodleian
Library; Sheldonian Theatre; The
Clarendon building.

18 sheets del. by E. H. New, 1908-1921

London

City and Port of London from the Borough of Southwark, showing the River and the principal buildings between the Temple and the Tower Bridge in 1919, 2 sheets.
del. by E. H. New
Westminster, showing the bridge, Houses of Parliament, the Abbey. E. H. New, del.

Florence

View. 1914, del. E. H. New
PRESENTED BY MR. E. H. NEW [Hon. A.]

Portrait

Robert Kerr (framed). D.
PRESENTED BY F. NESBITT KEMP [F.]

Sanctis (Giacomo de)

Drawings of columns. 15 sheets.
PRESENTED BY E. P. WARREN [F.]

Loan Library.

PRESENTED.

Abercrombie (P) and Kelly (S and A)

Dublin of the future and report of the Adjudicators. 2 copies. fo. Liverpool [1923]
PRESENTED BY THE AUTHORS.

Bolton (A T)

Life and work a century ago : an outline of the career of Sir John Soane. 1 pamph. 4o. Lond. 1922
PRESENTED BY THE AUTHOR [F.]

Craig (F B)

Treatise on central heating. 8o. Lond. 1922
PRESENTED BY THE AUTHOR.

Hudson (R J H)

Reinforced Concrete. 8o. Lond. 1922

Hubbard (George)

On the site of the Globe playhouse of Shakespeare. 2 copies. 1a. 4o. Lond. 1923
PRESENTED BY THE CAMBRIDGE UNIVERSITY PRESS.

Hughes (T H) and Lamborne (E A G)

Towns and Town-planning. 4o. Oxford 1923
PRESENTED BY THE CLARENDON PRESS.

Jourdain (M)

English decoration and furniture of the later eighteenth century (1760-1820). fo. Lond. [1922]
English interiors in smaller houses from the Restoration to the Regency. 1660-1830.
fo. Lond. [1923]

PRESENTED BY B. T. BATSFORD, THE PUBLISHER.

London County Council

Survey of London. Vol. viii., The parish of St. Leonard, Shoreditch. 1a. 4o. Lond. 1922
PRESENTED BY THE PUBLISHERS.

Lorne (F)

Architectural office administration. 8o. Lond. 1921
PRESENTED BY TECHNICAL JOURNALS, LTD.

McCullough (Ernest)

Practical structural design, 2nd ed. 8o. New York 1921
PRESENTED BY THE U.P.C. COMPANY.

National Lumber Manufacturers' Association

Frame construction details. 4o. Chicago 1920
PRESENTED BY THE ASSOCIATION.

Ruskin (John)

Modern painters. vol. 5. 8o. Lond. [1909]
Seven lamps of architecture. 8o. Lond. [1909]
PRESENTED BY C. H. BRODIE.

Simpson (John W)

Essays and memoirs. 1a. 8o. Lond. 1923
PRESENTED BY THE ARCHITECTURAL PRESS.

Whyatt (H G)

Streets, roads and pavements. 1sm. 8o. Lond. 1923
PRESENTED BY THE AUTHOR.

LOAN PURCHASED.**Abercrombie (P) and Kelly (S and A)**

Dublin of the future, the new town plan and report of the Adjudicators. 4o. Liverpool and Dublin [1923]

Adams (H C)

Domestic sanitation and house drainage. 8o. Lond. 1923

Architectural Forum

Special number on Schools. 4o. Boston 1922
Special number on Hospitals. 4o. Boston 1922

Builder

Cost of building competition, a selection from the designs. ob. fo. Lond. 1923

- Caggesse (R)**
Foggia e La Capitanata. 8o. *Bergamo* 1910
- Capart (Jean)**
Egyptian art, trans. by W. Dawson. 8o. *Lond.* [1923]
- Carœ (W D)**
"Tom Tower," Christ Church, Oxford : some letters of Sir Ch. Wren to John Fell, Bishop of Oxford, with a chapter by H. H. Turner. *Savilian Professor of Astronomy*, and another by Arthur Cockrane, *Chester Herald*. 4o. *Oxford* 1923
- Cross (A W S) and Cross (K M B)**
Practical notes for architectural draughtsmen. Series 3: Working drawings of commercial buildings and business premises. fo. *Lond.* [1923]
- Daily Mail**
Bungalow book. ob. fo. *Lond.* [1922]
- Doncaster**
DONCASTER REGIONAL PLANNING SCHEME. Report by P. Abercrombie and T. H. Johnson. la. 4o. *Lond.* 1922
- Dye (F W)**
Warming buildings by hot water, 3rd ed. 8o. *Lond.* 1923
- Ferrari (Giulio)**
Il ferro nell' arte Italiana. fo. *Milan* [n.d.]
Il legno nell' arte Italiana. fo. *Milan* [n.d.]
Lo stucco nell' arte Italiana. fo. *Milan* [n.d.]
- Field (W B) and French (T E)**
Architectural drawing. la. 4o. *New York* 1922
- Fletcher (B F) and Fletcher (H P)**
Quantities, 9th ed. 8o. *Lond.* 1923
- Gerola (Giuseppe)**
Bassano. 8o. *Bergamo* 1910
- Gordon (J W)**
Generalised linear perspective treated with special reference to photographic land surveying and military reconnaissance. 8o. *Lond.* 1922
- PRESENTED BY THE AUTHOR.
- Gromort (G)**
Italian renaissance architecture, tr. by G. E. Waters. 4o. *Lond.* 1922
- Guilbert (A)**
Monument commémoratif [Chapelle Notre-Dame de Consolation] élevé à la mémoire des victimes de la Charité. fo. *Paris* [n.d.]
- Holme (Geoffrey), Editor**
Studio year book of decorative art, 1923. fo. *Lond.* [1923]
- Jaggard (W R) and Drury (F E)**
Architectural building construction.
vol. i., 2nd edition. 8o. *Camb.* 1922
_____, vol. ii., part 1. 8o. *Camb.* 1922
_____, vol. ii., part 2. 8o. *Camb.* 1923
- Knobloch (P G)**
Good practice in construction. la. 4o. *New York* 1923
- Lanzi (Luigi)**
Terni. 8o. *Bergamo* 1910
- Milman (Lena)**
Sir Christopher Wren. 8o. *Lond.* 1908
- Nicolosi (C A)**
Il Litorale Maremmano. 8o. *Bergamo* 1910
- Ramsey (Sir W M) and Bell (G L)**
The thousand and one churches. la. 8o. *Lond.* 1919
- Ramsey (S C) and Harvey (J D M)**
Small houses of the Late Georgian Period, 1750-1820. Vol. ii. : Details and interiors. sm. fo. *Lond.* 1923
- Royal Commission on London Government**
Report on the Local Government of Greater London. 8o. *Lond.* 1923
- Surveyors' Institution and Others**
Standard methods of measurement of building works. sm. fo. *Lond.* 1922
- Thompson (F L)**
Site-planning in practice, an investigation of the principles of Housing Estate development. 8o. *Oxford* 1923
- Zucker (Paul)**
Die Brücke. 8o. *Berlin* 1921



THE ACOUSTICS OF THE AUDITORIUM

the source being at M. Fig. 19 is a series of photographs of water waves in a vessel of this shape. The shape of the wave at the appropriate instant is seen in photographs 21 and 22 to be the same as that on the diagram. From the diagram it is possible to predict that a listener at A will hear four distinct echoes having intensities roughly of 0·9, 0·6, 0·5, 0·9 of the original sound respectively.

Where, owing to the presence of many curves and irregularities, the diagram is specially complex recourse may be had to a photographic method. It is possible, with the aid of suitable experimental arrangements, to

of the following waves in the two right-hand photographs.

Wide experience goes to prove that curved walls are almost always a menace to good acoustics. That this is bound to be the case might be inferred from the fact that all whispering galleries—the famous one of St. Paul's in London, those of the Salle de Cariatides in Paris and the church of St. John Lateran in Rome, and that of the Mormon Tabernacle in Salt Lake City, and many others that might be named—are all dependent for their peculiar qualities on the presence of curved surfaces. Concentrations of sound in one

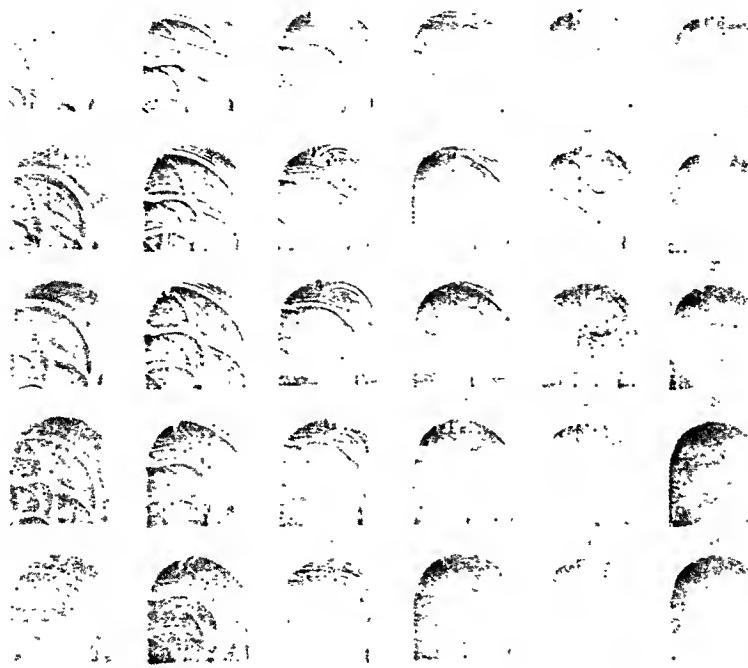


FIG. 19.—Progress of water waves in a vessel of the same shape as the Pantheon in Rome. Photographs at one-tenth second intervals.

photograph actual sound waves in their progress through a model of the room under test, but the photography of water waves is simpler and gives as much information.

Sabine has applied the photography of actual sound waves in advance of construction with marked success in several cases. Most notable of these is the Scollay Square Theatre in Boston. Had the original intention of the architect been carried out, there would have been a clear echo, as is shown by the distance and distinctness of the following wave in the two left-hand photographs of Fig. 20. On Sabine's advice the cylindrical ceiling surfaces were replaced by flat ones, and the disappearance of the echo is shown by the diffuse character

or more places imply similar deficiencies elsewhere, and non-uniformity of distribution is the result.

Not only are main foci produced by curved surfaces, but, owing to the phenomenon of interference, there are also subsidiary foci. To what an extent this is so may be deduced from Fig. 21, which represents the distribution of intensity at head level of the sound emitted by an organ pipe placed at the middle of the floor of a room with a segmental ceiling, whose centre of curvature is at floor level.

It must be realised that there is a similar but not identical system for every pitch of note, including the simultaneous components of a complex sound, so that there tends to be distortion as well as non-uniformity of



FIG. 20.—Showing the different characters of waves reflected from curved and flat surfaces.

loudness. A similar state of affairs was shown by Professor Raman and the writer to exist in the Whispering Gallery at St. Paul's Cathedral, where, if a pipe be sounded at one point of the circumference, points of concentration and silence are found round the circumference and also on proceeding inwards along a radius. At some points the octave of the note sounded is heard predominating.

One of the worst cases of the bad acoustics produced by curved surfaces is furnished by an auditorium in the University of Illinois. Here the form is roughly hemispherical, and from motives of economy the original intention of breaking up the walls was not carried out. The result was a chaos of sound. A speaker on the platform heard ten echoes of his own voice, and on one occasion the orchestra conductor heard the echo of an instrumental solo which was being rendered with orchestral accompaniment more strongly than the direct sound, and beat time with it, with what confusion can be imagined.

Figures 22 and 23 show the main concentrations of sound in this auditorium. These were inferred first from diagrams and afterwards from the path followed by an intense parallel beam of light directed at the various surfaces in turn. (It is to be noted, however, that the sound is not confined strictly within the limits of the light beams.) The offending surfaces were thus located, and temporary improvement was effected by hanging heavy sheets of canvas to prevent the sound from reaching these surfaces. The result was very unsightly, and the drastic action was then taken of lining the offending surfaces with felt. A difficulty arose when it was found that to felt all the offending surfaces would mean the introduction of so much absorbent material that the reverberation period when the hall was full would be too short, at least for music. The felt was therefore set

in strips with equal interspaces, so as to cover only half the surface. It was also mounted on wood battens set at a little distance from the walls. This method of mounting gives slightly greater absorbing power, but the extra expense and the added danger of fire more than overbalance the advantage thus gained. The resulting condition of the hall was that the reverberation with 1,200 persons present was reduced from 2·7 to 1·9 seconds, which is very near 1·8, the compromise value that is found satisfactory for halls as large as this when used for both music and speaking. All the worst echoes were found to be eliminated, but there were still slight echoes from the unpadded surfaces.

While in general a curved wall is a menace to good acoustics, one form of surface, the paraboloid, has been used with success. If the speaker's head is situated at the focus of this surface the reflected wave is a plane wave, giving a parallel beam of sound, which thus reaches the farthest points of the room with undiminished intensity. This in effect carries the splaying of the walls and ceiling to perfection. It is the principle of design of the Hill Memorial Hall in the University of Michigan. Fig. 24 shows the basis of longitudinal section and plan, which were slightly modified in practice to accommodate an organ. Fig. 25 is a fuller section. The design was successful in that every member of an audience of 5,000 can hear perfectly except the occupants of three rows of seats at the back of the ground floor, which were added after the building as originally planned was complete.

It is necessary, of course, for the speaker in this case to occupy a particular position, though some slight freedom of movement is permissible. A disadvantage of the form of design is that sounds of rustling or whispering in every part of the hall will be returned to the focus, and the result may be unpleasant for the speaker.

The Hill Memorial Hall has a volume of 800,000 cubic feet. The reverberation period when the hall is full is 1·7 seconds, which is found to be too short for music. When the hall is only partly full the tendency is for the reverberation to be too long for speech. This is a difficulty that may frequently have to be provided against. More nearly equal periods for different degrees of fullness can be attained by upholstering the backs and seats of the chairs with suitable cushions.

It seems desirable at the close of this article to give special consideration to a particular class of auditorium, the council chamber. The three qualities of loudness, distinctness and freedom from distortion, important as they always are, are even more necessary, and at the same time more difficult of attainment, in a council chamber. Here a member may speak from any part of the room, and as a consequence his audience may be largely behind him. It is a matter of common experience that a sound falls off in intensity much more rapidly behind a speaker than in front of him, and

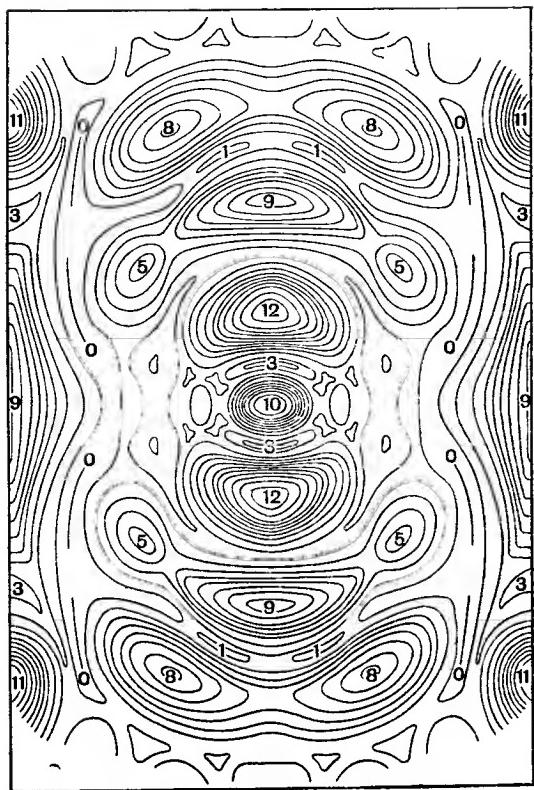


FIG. 21.—Showing the uneven distribution of intensity at head level produced by a curved ceiling. The lines are of the nature of contour lines. The source is in the centre.

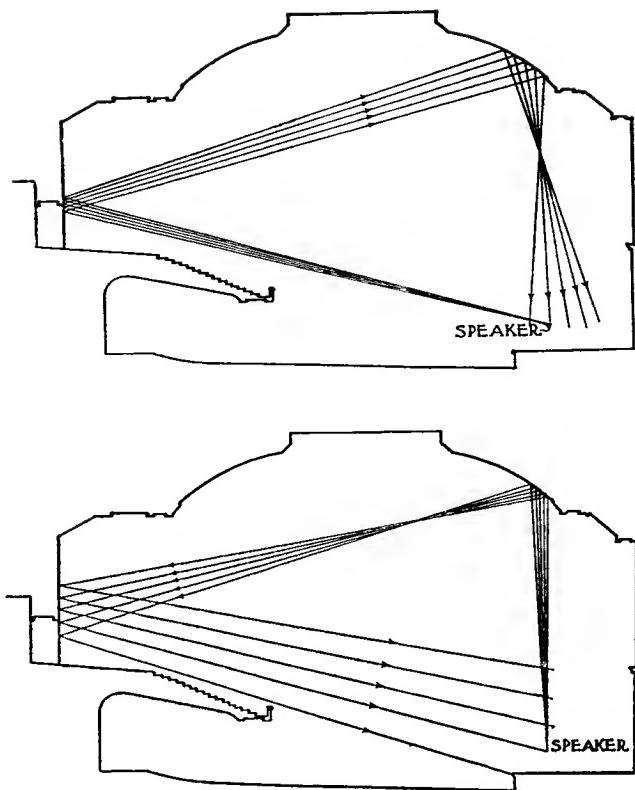


FIG. 23.—Illustrating echoes in an auditorium in the University of Illinois.

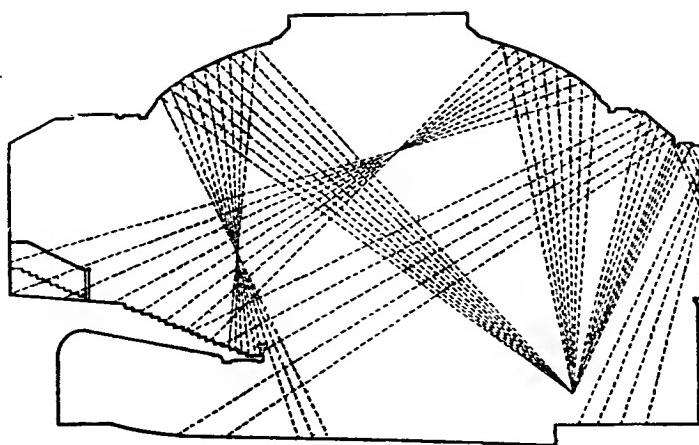


FIG. 22.—The main concentrations of sound in an auditorium in the University of Illinois (Longitudinal Section).

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

therefore the provision of hard reflecting surfaces which will reflect the sound as quickly as possible to every member of the audience, including visitors and representatives of the Press, is essential. If the ceiling be kept low, it will act as a suitable reflector for this pur-

pose. In addressing an audience partly in front of and partly behind him a speaker very often turns his head from side to side, with the result that points are missed. The advantage of making the ceiling the main reflecting surface will be clear. If a wall surface be chosen it will be necessary to train councillors to face in a particular direction when speaking.

Particular care must also be exercised to secure ade-

quate distinctness. In a council chamber a member expects to be able to address his audience intimately, and not to have to enunciate his words as slowly or clearly as he would in the formal address of a large audience. This, and the fact that in a council chamber,

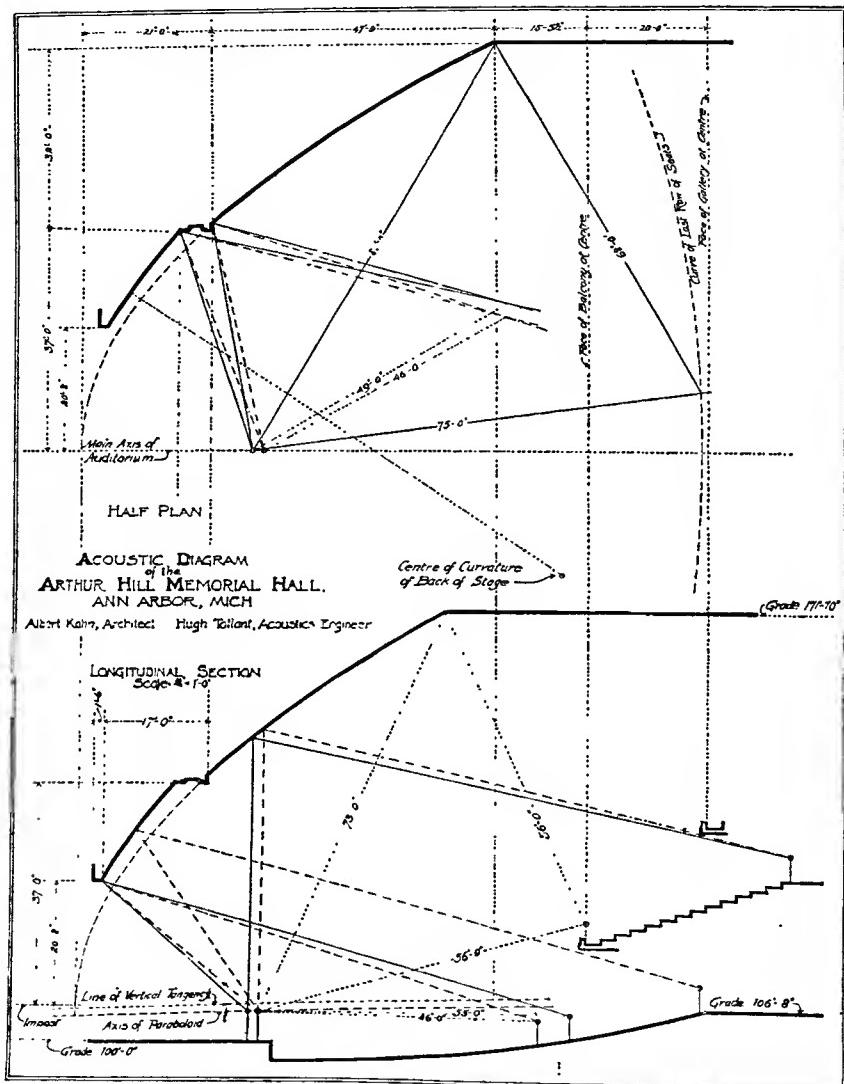


FIG. 24.—Acoustic diagram of the Hill Memorial Hall, University of Michigan.

pose. In addressing an audience partly in front of and partly behind him a speaker very often turns his head from side to side, with the result that points are missed. The advantage of making the ceiling the main reflecting surface will be clear. If a wall surface be chosen it will be necessary to train councillors to face in a particular direction when speaking.

with councillors entering and leaving and possibly conversing in undertones, there is always a measure of extraneous noise, make it imperative to have a specially short period of reverberation.

The London County Council Chamber fails in all these respects. The direct line condition is not satisfied; for the Press is relegated to a gallery in a deep recess out of sight of the chairman. The ceiling is so

THE ACOUSTICS OF THE AUDITORIUM

high that it cannot be used as a reflecting surface. If it were a good reflector, then sound returning from it would constitute an echo. If it could be made perfectly absorbent, then all the sound proceeding above the horizontal from a speaker would be lost to the floor of the house. As it is, the ceiling is partially absorbent, and so, instead of a discrete echo, there is confusion. The high ceiling and the recessed galleries make the volume large, and the result is excessive reverberation. Absorbent material has been introduced to reduce this, and it is now being stated that, although the reverberation is still slightly excessive, yet there is more absorbent material than the Sabine theory requires. This shows a complete misunderstanding of the whole question, for the Sabine theory requires the introduction of absorbent material until the reverberation is no longer excessive. Unfortunately, recourse is being had to quack methods of cure. A canvas velarium was introduced, too small and too high up to give the necessary false ceiling effect. This has now been replaced by a muslin one, which will have as much effect on the sound waves as a fishing-line would on the breakers on a seashore.

Nothing can now make the acoustics good in the sense that they would have been good if the room had been designed in the first instance as a council chamber and not as a monument; but some improvement might be effected by introducing further absorbent material into the upper part of the hall and by providing a suitably inclined surface, which the speaking member might face, to reflect the sound on to the floor of the house. This would not, of course, affect the galleries. Alternatively, consideration should be given to the

possibility of inserting a false ceiling, which could be of glass, to reduce the volume and provide a reflecting surface at a suitable height. It is true that certain legislative assembly rooms on the Continent of Europe are monumental in type and yet fairly successful acoustically; but there the problem is a different one, for there it is the custom for the speaking member to address the assembly from a rostrum position. That this is a very material consideration is evidenced by the fact that in the London County Hall every member on the floor can hear the chairman.

Within the past year prizes have been awarded in competitions for designs of legislative assemblies in Cairo, Colombo and Calcutta. All these are of the monumental type, and are bound to be acoustic horrors. It is time that something was done in this matter, and architects who act as assessors in competitions would do a signal public service if they refused to consider as eligible any design that did not conform at least to the reverberation period appropriate to the particular class of auditorium, if not to a more detailed acoustic specification.

It is not uncommon in designing a house to take account of the fact that a beautiful house means not simply a beautiful structure but a beautiful place to live in. It seems no more unreasonable to demand that an auditorium shall be not simply a beautiful monument, but a beautiful place to speak and hear in. Acoustic quality is never the sole consideration in design, but it is a consideration of prime importance. To ensure it consistently with the demands of engineering and art is no unworthy task for the architect to undertake.

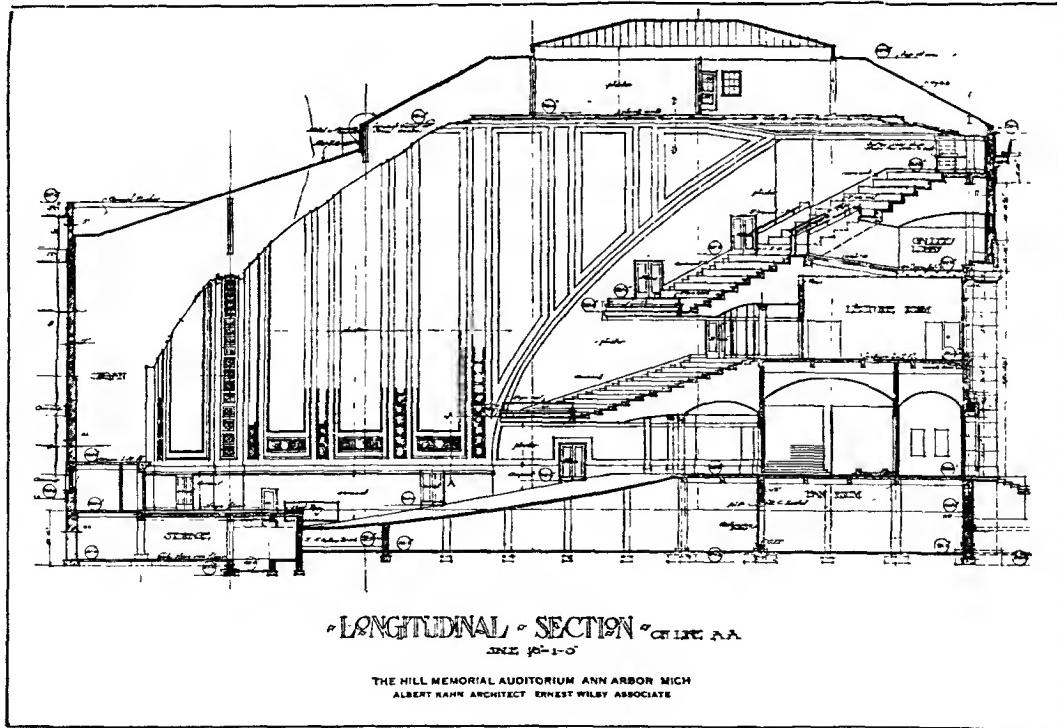


FIG. 25

The Planning of the Modern City *

BY H. V. LANCHESTER [F.]

THE author of this book opens with a few words of apology for producing another work on the subject, but we may affirm at once that the work amply justifies its inception, being a contribution of undoubted value.

In order to indicate its scope it may be well to quote the attitude towards this question as stated on the first page :—

It is the hope of the author that municipal engineers will find the following pages of some value in bringing to them a somewhat keener realisation of their part in, and responsibility for, the constructive work of city planning as well as city building. Most of the literature of this subject has been contributed either by architects, who emphasise its architectural or artistic side and appear to consider it an architectural problem, or by students of city government, who seem to regard it as an administrative problem. This volume is just as frankly written with the idea that the fundamental problems of city planning are, and from their very nature must be, engineering problems.

Now it need not be inferred from this that the engineering aspects take up an undue proportion of the book, which balances on the whole fairly accurately the various interests of Town Planning. Transportation and Streets, Parks and Recreation, Economics and Industries, Zoning Restrictions, Housing, Legislation and Finance all receive attention, and this of a broadly comparative and comprehensive kind that gives their presentment value and interest.

Naturally, there is less grasp when the aesthetic considerations arise, but the author has already discounted criticism on this score, in expressly stating that the subject is regarded more specifically from the standpoint of those usually charged with putting a scheme in operation.

The first four chapters review the more recent history of City Planning ideas and activities, including in a summarised form the question of improvement as well as development.

Chapter V., on Transportation, is one of the most valuable sections. Opening with a somewhat too condensed sketch of docks and water facilities, it passes on to rail transit in city areas, and gives the following useful table of comparative costs (for one mile of single track) :—

* *The Planning of a Modern City : a Review of the Principles Governing City Planning.* By Nelson P. Lewis, with the assistance of H. M. Lewis. [New York : J. Wiley and Sons.]

	\$
Tramway overhead trolley, on sleepers ..	25,000
Tramway, overhead trolley, on paved street ..	41,500
Tramway, underground conduit, on paved street	48,500 to 126,500
Elevated Railroad on steel viaduct ..	113,000
Elevated Railroad on masonry viaduct ..	330,000
Underground Electric (New York) ..	1,190,000
C.I. Tube tunnel below water level ..	2,700,000

These are all from American examples, but may be of value for the purpose of comparison. Much of the traffic dealt with is of an intensive character, and the hints as to how this can be handled are very much to the point.

One thing that strikes the reader is the tendency to identify the alignments for streets and rail transit, and to form elevated or underground lines where it would be obviously more economical in construction to plan suburban routes independently of, rather than along the lines of, the main roads. The costly Queen's Boulevard route, New York, is an example of this.

Chapter VI., on the Street System, is of less importance to English readers, as, if it accurately represents American practice, this is somewhat primitive and unscientific, particularly in respect to site subdivision. The following chapter, on Parks and Recreation, illustrated from American examples, contains some useful statistics, and the next, on Public Buildings and Civic Centres, is mainly notable for its series of illustrations of the Grand Central Station, New York, which takes first place among the great terminal stations all the world over for skilful arrangement and practical efficiency. The other illustrations are well chosen from typical American examples. After a chapter pointing out economic advantages of framing a city plan and another on a few types of the industrial town, we come to Chapter XI., on Street Traffic, in which will be found a good many interesting suggestions as to the ways in which this should be provided for and dealt with. Tables and statistics compare the number of fatal street accidents in various cities, and indicate in most of these a rapid increase during recent years.

Chapter XII., on Street Details, has some useful notes on street lighting, and closes with some illustrations of the exterior illumination of public buildings at night. Chapter XIII. deals with a problem that looms largely in America—namely, the substitution of

REVIEWS

over or under railway bridges for level crossings. It is of interest to note that the contribution claimed from the railways towards the cost of such works ranges from 50 per cent. to 75 per cent., and that, subject to certain limitations, the necessary regrading and reconstruction, including substantial modification of the railway level, is compulsory. Thus the local authority is in a very much stronger position than in England.

The following chapter combines the questions of building restrictions and zoning, which might well have been dealt with separately—though there is something to be said for the view that all types of restriction might be treated on a zoning basis.

The following extract from the report of the New York Committee illustrates the general position taken up in respect to zoning :—

Anything that will tend to preserve the character of a particular section for a reasonable period of years will tend to bring about the uniform improvement of the section. A large proportion of the land of New York City that is now unimproved or poorly improved is in that condition because the owners feel that the character of the section is changing, is bound to change in the near future or that the permanent character of the section is unknown. If restrictions were imposed so that the general character of particular sections could be forecasted with reasonable certainty for a period of years, owners who had been holding back on account of the uncertainties of the situation would find it clearly to their advantage to improve their holdings. The result would be that these restricted sections would be more quickly built up with buildings of similar type and use. This should have the effect of improving living conditions, reducing the cost of living, and maintaining real estate values.

Any growing city that fails to control building development must inevitably suffer enormous loss due to building obsolescence. Obsolescence may be defined as lack of adaptation to function. It results from changed conditions and surroundings that render the building inappropriate for the particular location. The total social loss does not consist merely of the great cost of building reconstruction or of the great decline in the rental value of the inappropriate buildings that are not reconstructed, but there is added to this the social loss due to the retardation of real estate improvements owing directly to the obsolescence hazard.

The need for the creation of special restrictions for special districts is most clearly exemplified in the case of suburban residence districts. Here real estate developers have often found it profitable to secure control of large areas in order by restrictive covenants to insure to intending purchasers of homes the creation and maintenance of a residence section of a certain desired type.

And this subsequent one indicates the effect of the New York zoning ordinances :—

It has checked the infiltration of hurtful industries in business and residence localities ; it has entirely excluded public garages and service stations from residence districts and, except in special cases, from business

districts ; new stores cannot be placed at will in residence districts, but must be confined to business streets where rental values are consequently improved ; old-established residence districts will continue as such, and home owning citizens can stay there ; while not specifically forbidding apartment houses, the area restrictions have prevented their invasion of districts where only a small proportion of the lot areas may be built upon ; a new type of business and office building has been evolved which allows light and air to reach the streets ; additional open spaces on building lots has made the structures more habitable and sanitary ; there is a tendency to distribute population instead of concentrating it, rendering the transit problem less difficult of solution ; owners of attached houses are maintaining them in better condition as the menace of invasion by business or apartment houses has passed and property values generally have been stabilised.

Altogether the case for zoning is logically and clearly put.

Chapter XV. deals with the Environs of the City, and that which follows with Garden Cities and Suburbs. The short Chapter XVII. on Legislation is of course a very brief summary of a subject that demands a volume to itself. Then we come to some interesting notes on propagandist methods, and those which have been so successful in America in securing financial aid for the preparation of a comprehensive city plan.

Chapter XX. discusses the principles which should govern land acquisition by municipalities, and puts the various points of view fairly and reasonably. The decision arrived at is that the community should, by land purchase or other means, be assured of a share in the values created by their presence and their labour.

The closing chapter is addressed to the municipal engineer, and points out the rapidly increasing responsibility that rests on him in guiding city development, and how he should make every effort to qualify himself to meet it. The opinion, previously expressed, that town planning is primarily a matter of engineering, is reiterated, and if we feel that the other aspects are unduly minimised, we must admit that the engineer's functions, as defined, are extended to cover as much of the ground as possible.

Reviews

DUBLIN OF THE FUTURE. *The New Town Plan, being the Scheme awarded the First Prize in the International Competition.* By Patrick Abercrombie, M.A., A.R.I.B.A., Sydney Kelly, F.S.I., and Arthur Kelly. Volume I of the Publications of the Civics Institute of Ireland. [The University Press of Liverpool and Hodder and Stoughton, Ltd.] London. 1922. £1 1s.

The International Competition promoted in 1914 by the Civics Institute of Ireland to elicit designs and re-

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

ports of a tentative nature on a plan for "Greater Dublin" was, in the language of the scribes, a brave "gesture." So, too, is the publication of this book at the present moment. The members of the Civics Institute of Ireland, under whose auspices the volume is published, feel that with the recent change in national circumstance a new epoch has begun, and that the present is a most opportune time to arouse the interest of the citizens. And so Dublin—with all its comparative disadvantages—has done what, after all, but few cities have succeeded in achieving.

The book is dedicated to the Most Hon. the Marquis of Aberdeen and Temair, K.T., G.C.V.O., G.C.M.G., LL.D., etc., and the Marchioness of Aberdeen and Temair, LL.D., etc., to whose munificence, and personal interest in the welfare of the City of Dublin, this scheme of Town Planning for its future is entirely due.

The Marquis presented a prize of £500 for the best design submitted in this competition, and one gathers that it was the offer of this prize which made the competition possible.

On the various ways of spending £500 we might well meditate. The Marquis of Aberdeen and Temair selected an original method—it is, indeed, probable that he is the first to spend this sum in precisely this way—and he has clearly set a most excellent precedent.

Dublin of the Future shows what good results followed that munificent gift. Eight sets of plans and reports were submitted, and on these Professor Patrick Geddes, Charles F. MacCarthy (City Architect, Dublin) and John Nolan were asked to adjudicate. So impressed were the adjudicators with the excellence of the work submitted that they could only make their final award after prolonged and repeated scrutiny, though they were then unanimously of opinion that the scheme submitted by Professor Abercrombie, Sydney Kelly and Arthur Kelly was the best as regards all three heads of the competition—Communications, Housing, and Metropolitan Improvements. Four Honourable Mentions were also awarded unanimously by the adjudicators, who expressed a desire for the publication of all the reports, especially for that submitted by Messrs. Ashbee and Chettle. Of this latter report the adjudicators write as follows : " Its sympathetic appreciations of historic growth and architectural traditions, its understanding of present deterioration, and this both in its causes and its consequences to the condition of the people, its appeal for Civic Survey, and its lucid indications towards this, and the fine spirit of hope and ardour with which its many and able constructive proposals are put forward, make this volume well worth completion and separate publication, and one which should be read not only in Dublin but by city improvers everywhere."

This high praise of an unsuccessful report makes it clear that, as one would expect to be the case, the work of Messrs. Abercrombie, Sydney Kelly and Arthur Kelly reaches a remarkably high level, and a study of *Dublin of the Future* fully confirms that view.

The authors fully realise that a competitive scheme is prone to produce in such a report faults which a maturer consideration would wish to remove. It was impossible, however, to bring their plan up to date without unfairness to other competitors, and they therefore decided to publish the competitive scheme supplemented with further drawings, reinforced with additional data, and revised only so far as is consistent with the original framework. It is also made fully clear that the recommendations in the report are tentative, and that no work should be commenced without a thorough systematic investigation by means of a civic and regional survey to provide the necessary information which was not available to the competitors." The report deals in considerable detail with problems connected with the Harbour, the Liffey and other waterways, railways, road systems, tramways and a suggested power citadel at the mouth of the Harbour. The local industries and their location are also considered, and a new site suggested for future abattoirs.

Under the heading of Housing the report, after considering the existing conditions, gives an outline of general policy and deals in some detail with intra-urban and extra-urban areas (giving types of cottages, lay-outs, etc., in both cases), neighbourhood centres and allotments.

The third part of the report, dealing with central improvements, public buildings, architectural character of suburban growth and the park system, opens with a zoning plan indicating the relative position of factory areas, rehousing areas, open spaces, etc. The suggested central improvements which follow are particularly interesting, well illustrated and ably described. Especially useful is the period plan, showing how certain valuable improvements could gradually be realised. The report wisely states that any suggestions for the grouping of public buildings in Dublin must be dominated by historic considerations, the occasion not being one for the planning of a huge monumental civic centre, the new centre of the town being at most a traffic heart.

Dublin of the Future is a valuable addition to the literature of Town Planning. It is beautifully produced, the paper and printing are excellent, the illustrations numerous, clear and definite. Special reference should be made to the fine imaginative frontispiece, "The Last Hour of the Night," by Harry Clarke.

W. S. PURCHON, M.A. [A.]

REVIEWS

A NEW FRENCH SYSTEM OF ARCHITECTURAL EDUCATION. *Cours d'Architecture et de Constructions Civiles.* Par M. E. Arnaud. [5 vols. Paris.] 1923.

Presented to the Institute's Library by the author, Professor to the Ecole Centrale des Arts et Manufactures and also at the Ecole Nationale Supérieure des Beaux-Arts, this series of five volumes, together with an additional volume of plates, presents a very thorough and careful *exposé* of the lectures he gave to the second-year students of l'Ecole Centrale, in Paris. A separate Table of Contents, clearly tabulated, is subjoined.

In the first part, the author studies all the stages, twelve in all, which both the architect and the builder have to go through, from the time when the programme of any particular building is given to the architect to the last stage, when the building is entirely finished and all accounts settled. The most important of all, "Composition" or "Design," is studied at length. But in order to go from the fourth stage (settling the sketch design) to the later ones (working drawings, specification, estimate, and so on), the architect requires technical and practical knowledge, getting every day more extensive, which makes up the second part of this important work.

In the second part, therefore—the most thorough, requiring three volumes, with 502 illustrations in the text and 287 plates—the sequence followed is, so far as the greater part is concerned, unusual. After beginning with a chapter on reinforced concrete, considered as a material and as a mode of construction, the author, instead of devoting special chapters to each "corps d'état," a method which apparently fails to show the sequence binding them together, follows the order in which the building is erected, viz., from the foundations up to the roofing. He sets down and comments upon all the known methods of construction, all the questions of hygiene and all the specific difficulties which, in practice, crop up in the course of building operations, and which it is necessary for the builder as well as for the architect to consider. He brings out all the fundamental principles governing each problem, and gives by means of numerous sketches and drawings the methods used in practice, and often adds photographs of executed work.

The first two volumes treat especially of the main building, the structure itself, including roofing and staircase; the last volume deals with all metalwork, partitioning, parquets, cement flooring, asphalte, mosaic, marble, linoleum, fireplaces, flues, all water installations, lavatory, gas installations in the house, central heating, lifts, and internal decoration.

In the third part, the author summarises what has been set forth and applies what has been propounded by the study of an important and actual series of operations carried out in the "Rue des Italiens" and of the houses bordering it on either side. This part contains 77 plates, sketches and drawings in the text, and 47 large plates.

What strikes one most, after a careful perusal of this work, is the accuracy and thoroughness shown in tackling the problems under review; also the essentially French character of the modes of construction. The detailing is

equally very French. The text is lucid, but the plates, on the other hand, although clear enough, suffer from a somewhat casual method of presentation which compares unfavourably with the standard obtaining in England or in the U.S.A. But they embody valuable information, such as the huge and handsome hangar for two dirigibles at Luçon, the size of which would easily encompass the Arc de Triomphe de l'Etoile, in Paris, or the steel frames to industrial buildings. But it is, nevertheless, a very serious piece of work, and one which will, no doubt, commend itself to our own students, architects, and builders. It is published by l'Imprimerie des Arts et Manufactures, 8 Rue du Sentier, Paris.

GORDON HOLT.

PRACTICAL STRUCTURAL DESIGN. By Ernest McCullough, C.E., Ph.D. [U.P.C. Book Co. Inc., 243-249 West 39th Street, New York.] 1921.

This work is confined to the theoretical side of structural design. That it is not intended for English students is shown by the many references to trade books issued by American firms which British students would not have the opportunity of pursuing, whilst other chapters, again, are devoted to details of timber construction (essentially an American practice). On the other hand, beyond elementary principles no useful data are given about reinforced concrete structural design. This seems rather a serious omission at a time when buildings in reinforced concrete are tending to rival in number and importance those designed to be framed wholly in steel and (or) timber.

The general information given throughout is lucidly stated, but the book loses in value by too few illustrations and diagrams, those which are given being so small that the detail is lost, or the figures are not readily legible.

The scope of the book also seems to demand fully worked out examples of such essential parts of a structure as plate and rolled steel girders and stanchions with their connections; lattice girders and framed steel roofs, etc. Such examples would render the book much more interesting and informative for draughtsmen.

The arrangement, or lack of arrangement, adopted by the author is a distinct falling off from the accepted method in this country of maintaining a clear division, generally by means of separate volumes, between structural and theoretical problems. In the circumstances, therefore, the book can scarcely be seriously considered to fulfil the author's claim that it is "written especially for self-tutored men."

Generally speaking, it cannot be said that the book contains information not readily available to English students, nor is such information more lucidly described or illustrated than in the many excellent text books published in this country.

P. M. FRASER [F].

Exhibition of Drawings by Students Exempted from the Final Examination

BY ARTHUR J. DAVIS [F.]

The greatest interest attached to a visit to the University of London Bartlett School of Architecture, at University College, Gower Street, where the designs of the students exempted from the final examination of the R.I.B.A. have recently been on view. The exhibits are remarkably good as a whole, especially when one remembers that the very best work of the schools is not presented, owing to the designs submitted for the important prizes being ruled out of the Exhibition. The drawings indicate clearly the methods of our principal schools of architecture in directing, each in its own way, the education of their advanced students. The results show much architectural skill applied to a comprehensive and varied group of problems, from the point of view of composition, combined with practical knowledge and sound construction. There are exhibits from the students of the Architectural Association, Liverpool University School of Architecture, Glasgow School of Architecture and the Robert Gordon Technical College, Aberdeen. Unfortunately, owing to a readjustment of their course of studies, the London University School is not represented. The R.I.B.A. Board of Architectural Education Silver Medal for recognised schools will be awarded for the best set of designs submitted at the Exhibition.

A glance at the designs is sufficient to enable one to see the different influences in each school. The Architectural Association, the Liverpool University, and the Glasgow Schools of Architecture are evidently fortunate in being under the guidance of leaders of experience and ability. The results they have obtained are sufficient to demonstrate the advantages of a sound theoretical training over the more haphazard methods of apprenticeship as practised in a former generation. The profession should realise that we have to-day in Great Britain schools with a standard of education capable of challenging that of other countries where the importance of the study of theoretical architecture has been recognised for a far longer period. A criticism, which for many years was levelled at our schools by those who had not closely followed the development of their curriculum, was that the study of construction and architectural practice was sacrificed to the production of attractive but unworkable designs. This objection no longer holds good; on the contrary, at the Liverpool University, in some cases, the pendulum seems to have swung too far in the opposite direction, and the drawings of at least two of their students are more interesting from the point of view of construction than as examples of architectural compositions. The Liverpool University is certainly to be congratulated upon its efforts to deal with the practical and constructional side of architecture, but this should not be at the expense of other qualities which are even more important. It cannot be too often repeated that architecture is an art first of all, and whereas in everyday, practical building assistance and advice on construction can be obtained from experts, yet there is no hope for

an architect who is incapable of handling his own problem as an artist from its very inception. The designs exhibited are so varied and so numerous that it is impossible to examine them closely in the space at my disposal. The work of the students of the Architectural Association Schools and that of the University of Liverpool are both of high merit, followed at some distance by that of the Glasgow School. Considerably below these comes the work of the students of the Robert Gordon Technical School, Aberdeen.

I do not propose to review all the exhibits, but shall confine myself to a discussion of the salient points of those of particular interest. Starting with the work of the Architectural Association, the designs submitted by Miss Chambers immediately claim attention. They prove her to be a student of considerable knowledge and versatility, and are, all four, of a high standard. Her Town Planning scheme is clever and interesting, but she should have made more of the sea-front, although the contours which were given in the programme may have hampered her in this respect. Her layout for an Exhibition in Hyde Park is a very fine conception, and shows great skill in handling detached groups of buildings. The arrangement of the various sections of the Exhibition is excellent, and from the main approach over the bridge the entire plan is at once visible. She has kept her large court open to the afternoon sun, and has considered the general composition in relation to the Round Pond and Kensington Palace. The principal vista has been cleverly conceived, but one misses a culminating architectural feature at the end of the perspective. The hall unfortunately blocks the entrance of the courtyard, and would, in my opinion, have been much happier if it had been placed at the extreme east end of the plan, where it would have also provided a motif from the Park Lane side. The individual buildings in the composition have been laid out and connected with skill, and the visitor to any particular section should be able to find his way about easily and without fatigue. Her town house shows that she has grasped the chief requirements of this interesting problem. The two fronts, where good light is obtainable, are used to the best advantage, and on all floors the services and staircases are in their correct positions. The passenger lift, by its unfortunate situation, has created difficulties all the way up, as it masks what might have been a successful source of light to the corridors. Miss Chambers will forgive me if I observe that her larder opens directly out of the kitchen, that she appears to have forgotten the fuel store required in the programme, and that her scullery opens on to the main corridor. In the dining-room the position of the service door would give the guests seated at the table opposite a direct view of the entire service room. On the upper floors the relative arrangement of doors, fire-places and windows is faulty, as in these rooms the beds could not be placed in the best positions. The interior decorations evidently aim at simplicity and restraint, but they are cold, and show a lack of imaginative quality. The treatment in colour of a Café Restaurant on an island is remarkably good so far as the elevation is concerned. The voids and solids are well proportioned, the colour scheme is gay, and the whole design shows a characteristically light and cheerful handling. In plan, the great curve of the external wall of the

EXHIBITION OF DRAWINGS BY STUDENTS

restaurant would look unpleasant both from the inside and exterior.

Mr. C. Jellicoe has designed his Hyde Park Exhibition with the main entrance and principal vista from the east, a mistake in my opinion, as the group from the Serpentine would be unpleasing, and on leaving the Exhibition the eye would be conveyed to an irregular arrangement of houses in Park Lane. Again, he has committed the fault, so often noticeable in students' plans, where a "symmetrical parti" has been adopted, of endeavouring to balance groups of unequal importance on either side of a main axis. His scheme for Public Baths shows considerable merit, but he should not have duplicated his circulations, and the porticoed screens leading to inadequate rotundas are thin and poorly designed, and by no stretch of the imagination could they be considered suitable for the purposes mentioned in the programme. Mr. Jellicoe has missed the character of the elevation, which is dull and uninspired. The long row of grotto-like arches facing the swimming bath are heavy and uninviting. He deserves praise, however, for the way in which he has studied and presented his half-inch detail of the bathing pavilion, and this drawing alone is sufficient to demonstrate the progress in practical knowledge made by the latest students of the Architectural Association. Mr. C. Hyslop presents an interesting layout for a seaside pleasure resort, and his design for a monumental fountain is well proportioned and in good taste. His suburban house and swimming bath are both below the standard of his other work. Mr. C. Crickmay's work is also worthy of notice. His Kensington scheme is faulty as regards the approaches, and the central court is too congested. He has treated the plan of his bathing establishment with skill, and the changes of axis are cleverly arranged.

Before leaving the discussion of the work of the students of our principal London School of Architecture it is refreshing to note the trend towards the elimination of unnecessary classical orders and columns, which have so long been considered an essential factor in all beginners' designs. Apparently they are now encouraged to attack their problems in a modern spirit, only using traditional forms when these are necessary.

On the first floor are the exhibits from the Liverpool University, an ensemble which makes a very fine show, and I regret that the exigencies of space prevent me from describing the drawings as they deserve. Mr. C. Hutton has sent a fine set of drawings for a Repertory Theatre, one of the best designs in the Exhibition, but its merits are seriously challenged by the unfortunate drawings of other buildings which accompany it. Mr. Hutton should seriously consider his position as an architect. He is evidently carried away by his interest in working out the details of steel construction in preference to the study of architectural forms. I frankly admit my incompetence to criticise the details of his cantilever girders, trusses and grillages, and was much relieved when a friend of mine, a member of the Institution of Civil Engineers, volunteered to give me his opinion of these drawings. He informed me that the detail showed engineering ability, but that he considered it fell below the standard of good modern design. The plans and elevations of the theatre are difficult to criticise, as they are represented by blue prints, but

the general scheme appears to be sound and the programme well studied. Winders on important staircases cannot be recommended in any theatre, and the design of the proscenium arch does not fit in happily with the remainder of the decoration. The plans and elevations of the Kursaal by the same author are disappointing. The desire for symmetry at all costs has prompted him to balance the large swimming bath on one side of the courtyard with a multitude of small compartments of the Turkish bath on the other. The important features of the plan are not translated in the elevation, which in itself is poorly proportioned. Out of this programme he might have produced grouping of character and interest if the different parts of the scheme had been expressed in their proper relation. His Palais de Danse plans and City Viaduct are equally disappointing, especially when compared with the merit displayed in the theatre design.

Mr. E. Fry has sent in some good work, but the different departments of his seaside restaurant are not planned logically in their proper proportions. The entrances are too narrow for such an enormous restaurant; the kitchen, which leads straight from this room, would be impossible as planned, and the tea-room has insufficient direct outlook. His commercial building contains too many public vestibules with a consequent lack of area for letting purposes. In elevation the double attic over the high frieze produces three superimposed horizontal divisions of equal weight, thus destroying the value of the upper part of his façade.

Mr. E. Higham, like Mr. Hutton, is evidently more at home with constructional detail than with architectural design. His building for the storage of documents and his theatre both show that he has yet something to learn as regards proportion and taste in architecture.

Mr. H. Hirst's College Chapel is well studied and interesting, but his Kursaal plan shows the fault above-mentioned of endeavouring to balance unequal masses symmetrically.

Mr. Brook exhibits a very ambitious plan of a University Assembly Hall, into which he has crammed as many columns as possible regardless of their functions. His elevation is cold and characterless, and the two pavilions on either side of the main portico do not balance. His cinema theatre interior is better, but he should be careful not to make use of the orders in and out of the season.

I noticed a good plan of an Office Building by Mr. Knight. The entrance hall, staircase and lifts are in their correct positions, and the light well is sufficient for its purpose. Mr. Knight's elevation is restrained in character, but the upper portion of the building is badly composed, and, owing to the heavy cornice below, the loggia would not produce the desired effect from the street.

From the Glasgow School, Mr. G. Fergusson sends a scheme for a Parliament House for a Federal State. His design is compact, and its mass well balanced, but the draughtsmanship is slovenly, and his sections, if considered as working drawings, quite inadequate for this purpose. His design of a Collector's House is not well drawn and rendered.

Mr. J. A. Coia sends a Byzantine Church of no great interest, and the façade of a Royal Palace, which, while denoting a certain skill, is overcrowded with indifferent

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

ornament. His Municipal Buildings are well planned, and the elevations have a certain dignity, but the drawings are produced in a confused manner, and would undoubtedly puzzle any unfortunate contractor whose duty it might be to execute the work from the information they contain.

Mr. J. Scott Sutherland's drawings (Aberdeen) for a Municipal Building are somewhat immature, and badly presented. Among other faults, the central dome, which might have provided an interesting feature, would not be visible from either side of his building.

There are many other fine schemes which also deserve attention, notably a Mosque by Mr. M. Raafat, full of Eastern character, carefully worked out both from the artistic and the constructional sides, and I regret that space does not enable me to extend this list still further.

AUTUMN PICTURE EXHIBITIONS.

The most important exhibition of modern pictures which has recently been opened is the Exhibition of Australian Art at the Royal Academy, "organised with the object of showing the British public the work of the artist resident in Australia." The exhibition contains much sincere and good work, and is certainly creditable to the art feeling of a country in which the population is comparatively small and scattered over vast areas. As might be expected, the great majority of the pictures are devoted to landscape, but without suggesting anything especially idiosyncratic in Australian scenery; and there are also some good portraits. Australian artists as a body seem to have escaped the influence of "new movements" which have more or less affected European art. Mr. Lionel Lindsay's pictures, which have attracted so much attention, are skilful, but not otherwise remarkable.

At the Grosvenor Galleries a room is devoted to the work of Mr. Henry Rushbury, A.R.W.S., which will certainly contribute to his reputation. Mr. Rushbury has a love of old and new streets, old and new buildings, and discovers for us a new interest in scenes that are familiar to most students of architecture. His subjects are taken from Rome, Florence, San Gimignano, Paris, Rouen and Marseilles, and none of them is hackneyed. His views of the Badia and the Bargello at Florence, the Place de la Concorde at Paris, the Quay at Marseilles, the Towers of San Gimignano, are amongst his most successful evocations. The drawing of the Lothbury Court at the Bank of England has an especial interest in view of its prospective demolition.

The Cotswold Gallery retains in its third annual Exhibition the selective and exclusive character which has distinguished its predecessors. It is a little world apart from the typical exhibition, in which any picture of a noisy colour would be a shock. Mr. F. L. Griggs, A.R.A., is the chief exponent in water-colour, a medium in which he conveys the depth, sensitiveness and poetic beauty which are to be found in many of his etchings and drawings. In his texture Mr. Griggs seeks for greater solidity than is usual in water-colour drawings. Mr. Arthur M. Hind, Oxford's Slade Professor, Mr. William Rothenstein, Mr. Russell Alexander, and Miss Edith Payne are amongst the other exhibitors.

"THE LISTER WARD."

ROYAL INFIRMARY : GLASGOW.

BY WILLIAM A. PITE [F.]

Mr. James A. Morris, A.R.S.A., of Ayr, has published a short pamphlet entitled *A Humble Plea for the Retention of the Famous Lister Ward in the Royal Infirmary of Glasgow*. We sincerely hope it may be possible to preserve the ward, and so terminate the discussion which is causing widespread concern in Glasgow and throughout the country. *The Times* had an admirable article entitled "Vandalism at Glasgow," and other distinguished advocacy has come from Lord Rosebery, Lord Blythswood, Earl Haig, and the Lord Provost; while a growing public opinion is in favour of preserving the ward of one who has been so aptly described by the eminent French surgeon, Professor Just Lucas-Championnière, as the creator of modern surgery.

If it were merely a matter of architectural propriety the difficulty might be settled right away, but we are unaware of the local circumstances, and they do not affect the very general desire to save the building. The outstanding facts seem to be as follows:—

Upon the site now occupied by the new magnificent Royal Infirmary stood a former building characteristic of its day, which, having usefully served its purpose, had to be displaced by the urgent claims of advancing medical and surgical requirements. In the forecourt of the Royal Infirmary stands a fragment of one of the wings of the original building, and it is the lower ward of this block that we believe it is desired to retain as a memorial to Lord Lister, the man who, with M. Pasteur, has been a benefactor to the races of the world.

Mr. Morris effectively discusses and dismisses the objections which have been advanced, and offers a practical solution which is worthy of close consideration. The proposal is to retain the lower ward and insert a roof before the upper storeys are removed, and to utilise in the construction such features as external cornices, etc., which may be necessary to provide a complete building. In this way it will be possible to retain the famous ward, which could be fitted up in the condition that ruled in Lister's time, and so provide an example of a ward of the Victorian period which would illustrate "things as they were." The adjacent rooms would be utilised for museum purposes.

We have similar memorials in the Dr. Johnson House at Lichfield, and in the Carlyle House, Chelsea, etc. Foreign nations have honoured the achievements of Lord Lister by memorials to his genius, and it is surely a small thing that his countrymen are now asked to do in preserving, we say if possible, this ward to his honoured memory, and for the information of generations to come who yet will benefit by his labours.

Lord Lister's gentle retiring nature would no doubt have repudiated these suggestions; but it is a duty which posterity owes to itself gratefully to keep in memory the beneficent labours of one who spent his long life to save his fellows. Surely architectural amenity may in this case bow to what should be inevitable.

ALLIED SOCIETIES

Legal

The following communication has been received from Mr. W. E. Watson [F.], barrister-at-law :

BUILDING OWNER'S LIABILITY FOR QUANTITY SURVEYOR'S CHARGES.

The statement in the JOURNAL of 14 July by the Solicitors to the Institute raised an interesting point, and it will be admitted that the instruction from a client to the architect to obtain tenders for works costing more than £2,000 normally implies authority to bind the building owner for the expense of preparing quantities. It is usual, however, for the architect to mention the matter to the employer, so that he may realise his liability, if keen competitive tenders are required.

An interesting case on this point was decided in 1877, known as *Waghorn v. The Wimbledon Local Board*.

The defendants, a Burial Board, by resolution, instructed R., their architect, to prepare plans and get tenders for a cemetery chapel. R. employed the plaintiff, a quantity surveyor, to take out quantities; the work went to tender, but none being accepted the plaintiff sued the defendants, who set up that they never authorised R. to employ the plaintiff, and that as a corporation they must contract under seal.

Manisty, J., ruled that as the defendants had instructed R. to get tenders they impliedly authorised him to get quantities taken out, and overruled the objection as to the necessity of sealing; the plaintiff had judgment.

The plaintiff, Mr. Joseph Waghorn, is a "quantity surveyor." The defendants are, by statute, the Burial Board, as well as the Local Board, for the district of Wimbledon. In 1875 they instructed their salaried surveyor, Mr. Rowell, to prepare plans and specifications, and to procure tenders for the erection of a cemetery chapel. These instructions were embodied in a resolution passed at a meeting of the Board. When Mr. Rowell had prepared the plans, he instructed the plaintiff to take out the "quantities," and he advertised for tenders in *The Builder*. Several builders sent in tenders, having used the quantities taken out by the plaintiff in arriving at their estimates. The defendants did not accept any of the tenders, the amount of the lowest being higher than the sum which they intended to expend.

The case for the defendants was that they never authorised Mr. Rowell to employ the plaintiff to take out the quantities. Several architects and surveyors were called for the plaintiff, who stated that the business of a quantity surveyor was quite distinct from that of an architect, and that it was necessary that the quantities should be taken out to enable the builders to tender. They also stated that the custom was for the builder, when sending in a tender, to add the charges of the quantity surveyor to his estimate, and that if the tender was accepted he paid the quantity surveyor. If, however, none of the tenders were accepted, the building owner was liable to pay the quantity surveyor's charges.

At the end of the plaintiff's case, it was submitted that there was no evidence that the defendants had authorised Mr. Rowell to employ the plaintiff to take out the quantities.

Manisty, J., ruled that as they had instructed him to procure tenders, and as tenders could not be made without quantities, they had impliedly authorised him to get the quantities taken out.

It was then submitted that the defendants, being a corporation, could only contract under seal, and there being no contract under seal here, the plaintiff could not recover.

Manisty, J., ruled that as the defendants had by resolution impliedly authorised Mr. Rowell to get the quantities taken out and had the benefit of the work which had been done, their objection was not tenable.

Judgment was accordingly entered for the plaintiff for the amount claimed (£170 19s. 10d.).

Obituary

J. B. EVERARD [F.]

Mr. Everard, who was elected a Fellow in 1888,* died at Leicester on 13 September. He was also a Fellow of the Surveyors' Institute, of the Geological Society, a member of the Institution of Civil Engineers, and of the Mining Institute. Mr. Everard was largely engaged in important engineering schemes, and it was due chiefly to his initiative that the Derwent Valley water scheme was successfully carried out so far as Leicester is concerned, a scheme which involved the construction of a bridge over the Trent. He was a member of the well-known firm of architects, Messrs. Everard, Son and Pick, who carried out many important architectural works, including the Leicestershire and Rutland Counties Asylum at Narborough, the Leicester Technical and Art Schools, and the remodelling of the Leicester Royal Infirmary.

Mr. Everard had been High Sheriff of Leicestershire and occupied other honourable positions in public life. He was seventy-eight years of age.

Allied Societies

READING SOCIETY OF ARCHITECTS.

The Reading Society of Architects has arranged in conjunction with the Reading Branch of the Workers' Educational Association an unusually interesting course of four lectures, which in their sequence broadly cover the history of architecture from Greek to modern times. The series of lectures and lecturers is as follows :

24 October—"The Greek Point of View," Mr. Ronald P. Jones, M.A. [F.]

7 November—"The Roman Point of View," Mr. Paul Waterhouse, M.A., P.P.R.I.B.A.

21 November—"The Mediaeval Point of View," Major H. C. Corlette, O.B.E. [F.]

5 December—"The Renaissance and Modern Point of View," Mr. W. E. Vernon Crompton [F.]

THE R.I.B.A. AND THE ALLIED SOCIETIES OVERSEAS.

The close sympathy which exists between the Institute and the allied societies is expressed in the following extracts from letters received in answer to Mr. Waterhouse's letter published in the JOURNAL of 18 August.

Mr. G. T. Hurst, the Past President of the Natal Institute of Architects, writes :—

"In our much smaller sphere my experience has been closely parallel with yours as regards a broadening and deepening conception of the real fraternity of the allied bodies as of the individual members of the profession, whether in the homeland or scattered over the Empire, and of all that that connotes."

Mr. C. Reginald Ford, the Past President of the New Zealand Institute of Architects, writes :—

"Architects in New Zealand, like all their fellow-countrymen, are imbued with a love of England, but, perhaps because of their calling, which makes them more fully

* Mr. Everard retired in 1911.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

conscious of their immeasurable debt to the mother country, that love is particularly deep and real.

"That our organisation may come into closer union as the years pass, alike to aid in the advancement of our art and to strengthen the bonds of Empire, is, I am sure, the wish of all members of the New Zealand Institute."

R.I.B.A. PREMISES.

It was hoped to complete the rebuilding of the R.I.B.A. Galleries and other alterations before the opening of the session, but unforeseen difficulties have arisen which will delay the completion until the end of December. Arrangements are being made for holding the examinations in November and December at other premises.

Through the generous hospitality of the Royal Society of Medicine, the R.I.B.A. General Meetings in November and December will be held in the Barnes Hall of the Royal Society of Medicine, No. 1, Wimpole Street, W.1. Members are particularly requested to note the address.

The Inaugural Meeting, which will be opened by the President's Address, will be held at the Royal Society of Medicine at 8.30 p.m. on Monday, 5th November. On this occasion the portrait of Mr. Paul Waterhouse, Past-President, which has been painted by Sir William Orpen, R.A., will be unveiled and presented to the Royal Institute, and the Medal for the year 1922, which was awarded to Mr. W. Curtis Green, A.R.A., for Wolseley House, Piccadilly, will be presented to Mr. Curtis Green.

THE POLICY OF THE R.I.B.A.

The Council have appointed a Charter and By-Laws Committee for the purpose of considering and advising the Council upon the revision of the Charter and By-laws.

This Committee has also been directed to consider the question of the general policy of the R.I.B.A., to explore the existing situation, and to submit a report to the Council upon it at the earliest practicable date.

The Committee consists of the following members : Mr. J. Alfred Gotch, President.

Major Harry Barnes, Mr. H. T. Buckland, Mr. E. Guy Dawber, Mr. W. Curtis Green, A.R.A., Vice-Presidents.

Mr. Arthur Keen, Hon. Secretary.

Mr. Herbert A. Welch, A.R.I.B.A.

BOARD OF ARCHITECTURAL EDUCATION.

R.I.B.A. INTERMEDIATE EXAMINATION.

NOVEMBER, 1923.

The centres for this examination will be London and Leeds. At both centres the examination will be held from 23 to 27 November 1923, inclusive.

At the London centre the oral examination will be held on 29 November ; at the Leeds centre on 28 November.

MR. BRANFORD'S SOCIOLOGICAL STUDIES.

The forthcoming publication of a book entitled *Science and Sanctity : a Study in the Scientific Approach to Unity* (London, Leplay House Press), by Mr. Victor Bransford, will be a matter of considerable interest to all those who are interested in the Civic Survey movement as a basis of schemes for Town Planning. Mr. Branford's work in the promotion of regional surveys in connection with the Sociological Society is well known, and the elaboration

of his theories, to which several chapters in the book are devoted, will attract the attention of all thoughtful students of sociology and its relation to the practical development of our towns and cities.

PUBLIC LECTURES ON ARCHITECTURE.

Sir Banister Fletcher [F.] is giving a course of twenty-four lectures on "Ancient Architecture," on Wednesdays at 6 p.m., at the Central School of Arts and Crafts, Southampton Row, W.C.

Miss Margaret Murray, F.S.A., is giving a course of twelve lectures on "Ancient Egypt," at the British Museum, on Tuesdays, at 4.30.

Miss Claire Gaudet is also giving a course of lectures at the British Museum on Thursdays at 4.30, in the Lecture Room, on "Recent Excavations in Mesopotamia, Egypt and the Mediterranean, showing the Evolution of Architecture from the 4th Millennium B.C. to Roman and Early Christian Times."

FORTHCOMING PUBLICATIONS.

Messrs. B. T. Batsford's list of autumn announcements includes : *English Decoration and Furniture During the Late Tudor and Early Stuart Periods*, by M. Jourdain—the concluding volume on the earliest period of the four in *The Library of Decorative Art*, completing the story from 1500-1820 ; *The Decorative Arts in England During the XVIIIth Century*, edited by H. H. Mulliner ; *A History of Ornament*, by Professor A. D. F. Hamlin—the second and concluding volume on the Renaissance and Modern Styles ; *The Significance of the Fine Arts*—a volume embracing sections on Architecture, Sculpture, Fine and Applied Arts, and Music, by various writers, issued under the direction of the Committee on Education of the American Institute of Architects ; *A Guide to English Furniture Styles from Tudor Times to the Regency*, by J. T. Garside, Lecturer on Furniture History at the Polytechnic Institute—the first section on the Tudor, Elizabethan and Jacobean styles ; *Everyday Life in Prehistoric Times*, by Marjorie and C. H. B. Quennell ; *The Human Form*, illustrated from studies by F. R. Yerbury, with an introduction on its application in Decorative Art past, present, and possible, by G. Montague Ellwood ; *The Story of the Art of Building*, by P. Leslie Waterhouse, M.A. [F.], re-modelled and re-illustrated ; *Old English Household Life*—an account of some of its aspects and fittings, by Gertrude Jekyll ; *Applied Drawing*, pictorial, decorative, mechanical, by H. H. Brown, with chapters by various authorities on art.

Messrs. Ernest Benn, Ltd., announce the forthcoming publication of a series of books to be published under the generic title *Masters of Architecture*, edited by Stanley C. Ramsey [F.]. Each volume will be illustrated by some thirty to thirty-five photographs, preceded by a written introduction or appreciation by a well-known architect who has made a particular study of his subject. The following volumes are in active preparation : *Inigo Jones*, by Stanley C. Ramsey, F.R.I.B.A. ; *Hawksmoor*, by H. S. Goodhart-Rendel ; *Vanbrugh*, by Christian Barman, editor of *Architecture* ; *Chambers*, by Trystan Edwards, M.A. [A.] ; *Bentley*, by W. W. Scott-Moncrieff, M.C. [F.] ; *McKim*, by C. H. Reilly, O.B.E., M.A. [F.]. The same publishers also announce the forthcoming publication of the first volume of *The Theory and Elements of Architecture*, by Robert Atkinson [F.], Director of Education at the A.A. School of Architecture, and Hope Bagenal [A.], Librarian of the A.A.

Mr. Arthur Geo. Warnham Tickle [F.], has been appointed Secretary to the Commissioners conducting the enquiry "as to what measures are possible to increase the quantity and decrease the cost of housing accommodation in the Colony of Hong-Kong."

NOTICES

Notices

THE OPENING GENERAL MEETING.

The First General Meeting (Ordinary) of the Session 1923-24 will be held on Monday, 5 November 1923, at 8.30 p.m., in the Hall of the Royal Society of Medicine, No. 1 Wimpole Street, Cavendish Square, W.1, for the following purposes :—

To read the Minutes of the Sixteenth General Meeting of the Session 1922-23, held on 25 June 1923; formally to admit members attending for the first time since their election.

To read the names of candidates nominated for election on 3 December 1923.

Mr. J. Alfred Gotch, F.S.A. (President), to deliver the Inaugural Address of the Session and to unveil and formally present the portrait of Mr. Paul Waterhouse, Past President, painted by Sir William Orpen, R.A.

To present the R.I.B.A. Medal and Diploma for the Best London Street Frontage 1922, to Mr. W. Curtis Green, A.R.A.

Competitions

CHISWICK RIVER EMBANKMENT AND PROMENADE, AND EASTLEIGH NEW ASSEMBLY HALL AND EXTENSIONS TO COUNCIL HALL.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competitions because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

IAN MACALISTER,
Secretary.

HOLMSIDE AND SOUTH MOOR COLLIERIES : COTTAGE HOSPITAL.

The President of the Royal Institute of British Architects has nominated Mr. T. R. Milburn, F.R.I.B.A., as Assessor in this Competition.

Election of Members

3 December, 1923.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 5 November 1923.

AS FELLOWS (21).

ALLNER : JAMES [A. 1909], 91 High Street, Poole ; Kingscote, Sterte, Poole.

CONDÉ : ALFRED ROWLAND, P.A.S.I. [A. 1902], 42 Cecile Park, Crouch End, N.8.

DRYSDALE : GEORGE [A. 1911], 17 Buckingham Street, Adelphi, W.C.2 ; 18 Horbury Crescent, Notting Hill Gate, W.

FRANCIS : ERIC CARWARDINE [A. 1915], St. Tewdric, near Chepstow.

GODWIN : WILLIAM HUBERT [A. 1914], Bank Buildings, Kidderminster ; Dowles, Bewdley, Worcestershire.

GREENAWAY : FRANCIS HUGH [A. 1891], Parliament Mansions, Victoria Street, S.W.1 ; 34 Ladbroke Gardens, Notting Hill, W.11.

- HATCHARD-SMITH : WILLIAM HORNBY [A. 1914], 11 Haymarket, S.W.1 ; Charlwood, Epsom.
- HEPWORTH : PHILIP DALTON [A. 1912], 7 Gray's Inn Place, W.C.1 ; 30 South Eaton Place, S.W.
- HILL : OLIVER [A. 1921], 23 Golden Square, W.1, 19 West Eaton Place, S.W.1.
- HUTT : HARRY [A. 1895], 164 Friar Street, Reading ; 29 College Road, Reading.
- MARKHAM : JOHN HATTON [A. 1905], "Elmside," Marlborough Hill, Harrow.
- MARSHALL : CHARLES JOHN [A. 1887], Balvaird, Burdon Lane, Cheam, Surrey.
- MAYSTON : ARTHUR RICHARD [A. 1891], 49 Chiswell Street, E.C.1 ; 57 Church Crescent, Church End, Finchley, N.3.
- MORTON : RALPH HENRY [A. 1898], North-Eastern Bank Chambers, South Shields ; Westoe, South Shields.
- NEWBERRY : JOHN ERNEST [A. 1889], Parliament Mansions, Victoria Street, S.W.1 ; 1, Flanders Road, Bedford Park, W.4.
- NEWTON : WILLIAM GODFREY, M.C., M.A.(Oxon.) [A. 1913], 4, Raymond Buildings, Gray's Inn, W.C. ; 11 Gray's Inn Square, W.C.
- SHARP : ANDREW [A. 1902], 73, King Street West, Toronto ; 296 Avenue Road, Toronto, Canada.
- SULLIVAN : LEO SYLVESTER [A. 1908], 158 Fenchurch Street, E.C.3 ; "Barrow," 5 Montana Road, Wimbledon, S.W.20.
- UNSWORTH : GERALD, M.C. [A. 1920], 38 Sackville Street, W.1 ; Shirkars, Petersfield.
- WILSON : GEOFFREY CECIL [A. 1910], Bank Chambers, 32 Strand, W.C.2 ; 6 Brent Villas, Hendon, N.W.4.
- WOOD : DOUGLAS, O.B.E.(Mil.), F.S.I. [A. 1902], 25 Sackville Street, W.1 ; "Hawthorndene," Gordon Avenue, Stanmore.

AS ASSOCIATES (31).

- ALEXANDER : THOMAS MACKELVIE [Special Examination], 6 Prince Alfred Road, Wavertree, Liverpool.
- BILLIMORIA : HOMI FRAMJEE, B.Arch.(Liverpool) [Passed five years' course at Liverpool University School of Architecture—Exempted from Final Examination after passing Examination in Professional Practice], Station Avenue, Wellawatta, Colombo, Ceylon.
- BLACK : KENNETH EASTBY [Special War Examination], 61 Hornsey Lane, Highgate, N.6.
- BUCHIA : SHAPURJI NASARWANJI, B.E.(Civil) [Special Examination], Dady House, Wadia Street Corner, Tardeo, Bombay, India.
- BUSH : SYDNEY POYNTZ [Special War Examination], Assistant Government Architect, Public Works Department, Secretariat, Rangoon, Burma.
- CLARK : RICHARD JOHN BOND [Final Examination], 24 Lannoweth Road, Penzance.
- CLIST : HUBERT ARTHUR [Special War Examination], 10 Westbourne Square, W.2.
- DAVIDSON : ARTHUR EDWIN [S. 1914—Special War Exemption], 2, 146, Queen Street, E., Toronto, Canada.
- DEUCHAR : CHARLES CUNNOLD [Special War Examination], Public Works Department, Union Buildings, Pretoria, South Africa.
- DODDINGTON : WILLIAM [Special Examination], 70 Bousfield Road, New Cross, S.E.14.
- EALES : WILLIAM HENDERSON [Special War Examination], 26 Blessington Street, St. Kilda, Victoria, Australia.
- FEARN : STANLEY WALTER [Special War Examination], 156 Willis Street, Wellington, New Zealand.
- FOREMAN : LESLIE ROBERT [Special War Examination], 123 Hollingbury Road, Brighton.
- HAIL : LESLIE WILLIAM [Special War Examination], 8 Leggatts Way, Watford, Herts.
- HALLIDAY : FRANKLYN LESLIE [Special War Examination], 14 John Dalton Street, Manchester.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

HAUGHTON : VIVIAN PALMER [Special War Examination], P.O. Box 406, Wellington, New Zealand.

IGGLESDEN : SIDNEY DIXON [Special War Examination], 23 Constantine Road, Hampstead, N.W.3.

LAWRIE : ALEXANDER FRASER [Passed six years' course at Robert Gordon's Technical College, Aberdeen—Exempted from Final Examination after passing Examination in Professional Practice], 19 Derby Road, Bertrams, Johannesburg, Transvaal, South Africa.

MASEY : RICHARD JAMES [Special War Examination], 20A Maple Road, Anerley, S.E.

MAY : ALBERT JOHN [Special Examination], 31 Allington Road, Southville, Bristol.

MILLIGAN : THOMAS WILLIAM [Special War Examination], Rhodes Buildings, Cape Town, South Africa.

MOFFAT : JOHN ARTHUR CARTER [Special War Examination] 19 Natal Bank Chambers, Durban, Natal, South Africa.

MONK : SYDNEY GEORGE [Special War Examination], 56 St. Albans Road, N.W.5.

PARHAM : ARTHUR DOUGLAS [Special Examination], Public Works Department, Colombo, Ceylon.

RIDING : RICHARD ARTHUR FIELDING [Special Examination], 57 Longridge Road, Earl's Court, S.W.

ROSS : WILLIAM [Special Examination], 137 West Regent Street, Glasgow.

STERRETT : JOHN EDWIN [Special War Examination], 21, Kenilworth Avenue, Walthamstow, E.17.

TOY : SIDNEY, F.S.A. [Special Examination], 29, Essex Street, Strand, W.C.

TRENGROVE : WILLIAM HENRY [Special War Examination], 140 Hereford Street, Christchurch, New Zealand.

WALKER : HUGHAITKEN HUTCHISON, M.C. [Special War Examination], 909 Church Street, Pretoria, South Africa.

WILSON : JOHN GODDARD [Special Examination], Public Works Department, Union Buildings, Pretoria, South Africa.

AS HON. FELLOW (1).

BURNHAM : The Rt. Hon. Viscount, C.H., M.A., LL.D., D.Litt., 13 Bryanston Square, W.I.

AS HON. ASSOCIATE (1).

KENYON : SIR FREDERIC GEORGE, K.C.P., M.A., D.Litt., Director and Principal Librarian at the British Museum, W.C.; Kirkstead, Godstone Surrey.

ELECTION OF MEMBERS, 7th JANUARY 1924.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the election to take place on the 7th January, 1924 they should send the necessary nomination forms to the Secretary not later than the 10th November.

Members' Column

PARTNERSHIP.

GENTLEMAN required is instant with a view to partnership in provincial city about two hours north of London. Reply, stating experience, etc., Box 1903, c/o Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

TO LET

TO LET.—Well-lighted Room in Architect's Suite in Temple; vacant Christmas or earlier; rent, £50 inclusive—Reply Box 1523, c/o Secretary, R.I.B.A., 9 Conduit Street, W.

MR. HAROLD BURLEIGH

MR. HAROLD BURLEIGH : I have taken an office at 51 London Road, St. Leonards-on-Sea Telephone Hastings 1234

PARTNERSHIP WANTED.

A.R.I.B.A., with small practice, would be glad to hear of an Architect requiring a partner, preferably in London, or a Chief Assistant, with a view to partnership.—Apply Box 1203, R.I.B.A., 9 Conduit Street, W.

CHANGES OF ADDRESS.

MR. EDWIN WILLIAMS (1.) has changed his address from 201 Edge Lane to 113 Grove Street, Liverpool.

MESSRS. PERCY TUBBS, SON AND DUNCAN have changed their address from 10, Gray's Inn Square, W.C.1, to No. 30, John Street, Bedford Row, W.C.1. Telephone : Museum 5809.

On and after October 7th the address of Messrs. Easton and Robertson will be 36, Bedford Square, London, W.C.1. Telephone : Museum 6424.

MR. H. W. PARNACOTT.

MR. H. W. PARNACOTT announces that he is continuing to practise, on his own account, at Members' Mansions, 36, Victoria Street, Westminster, S.W.1. The firm name is H. W. Parnacott, A.R.I.B.A., Architect.

DISSOLUTION OF PARTNERSHIP.

THE partnership existing between Charles James Hair and Ernest Bird in the business of Architects and Surveyors at 23, Portland Terrace, Southampton, has been dissolved. All debts owing by the late firm will be paid by Mr. Hair, who will in future carry on business at 23, Portland Terrace, Southampton. Ernest Bird will practise at 11, Portland Street, Southampton.

APPOINTMENTS WANTED.

ARCHITECT'S ASSISTANT shortly disengaged, at present assisting M.S.A., A.R.I.B.A., City Architects. Sketch plans, working drawings, details, measuring existing buildings, levelling, draft specifications, etc., with good general office routine. Reply Box 8023, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

EXPERIENCED ARCHITECT, with offices in the West Central district, is willing to help other architects. Sketch Designs, Working Drawings, Details, Specifications, etc.—Apply Box 1400, c/o Secretary, R.I.B.A., 9 Conduit Street, W.

REQUIRED by Licentiate, engagement in London district. Domestic work a speciality. Recently practising in town and could introduce work. Moderate salary.—Box 2883, c/o Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

A.R.I.B.A., with varied experience, would undertake work in London or Suburbs on behalf of provincial or Scottish architects, or would be glad to do work in his own office for any London architects who require temporary help.—Apply Box 1603, c/o Secretary, R.I.B.A., 9 Conduit Street, W.

A.R.I.B.A. of experience desires Assistantship with view to Partnership, or would take over existing practice if owner is desirous of retiring from active work.—Apply Box 5312, c/o Secretary, R.I.B.A., 9 Conduit Street, W.

Arrangements have been made for the supply of the R.I.B.A. JOURNAL (post free) to members of the Allied Societies who are not members of the R.I.B.A. at a specially reduced subscription of 12s. a year. Those who wish to take advantage of this arrangement are requested to send their names to the Secretary of the R.I.B.A., 9 Conduit Street, W.1.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

IAN MACALISTER,
Secretary R.I.B.A.

R.I.B.A. JOURNAL.

Dates of Publication.—1923 :—10th, 24th November; 8th, 22nd December. 1924 : 12th, 26th January; 9th, 23rd February, 8th, 22nd March; 5th, 26th April; 10th, 24th May; 7th, 28th June; 12th July; 16th August; 20th September; 18th October.



82

83

